

STATE OF OHIO  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF GEOLOGICAL SURVEY  
Horace R. Collins, Chief

Information Circular No. 42

**CATALOG OF  
OIL AND GAS WELLS IN  
"NEWBURG" (SILURIAN) OF OHIO**

by

A. Janssens

Columbus  
1975





SCIENTIFIC AND TECHNICAL STAFF  
OF THE  
DIVISION OF GEOLOGICAL SURVEY

ADMINISTRATIVE SECTION

Horace R. Collins, MS, *State Geologist and Division Chief*  
Richard A. Struble, PhD, *Geologist and Assistant Chief*

Jean Simmons Brown, MS, *Geologist and Editor*  
William J. Buschman, Jr., BS, *Administrative Geologist*  
Susan L. Duffield, BS, *Geologist and Assistant Editor*  
Madge R. Fitak, BS, *Geologist*  
Merrienne Hackathorn, MS, *Geologist and Assistant Editor*

Pauline Smyth, MS, *Geologist*  
Barbara J. Adams, *Office Manager*  
Eleanor J. Hyle, *Secretary*  
Jacqueline M. Connolly, *Clerk-Typist*  
Donna M. Swartz, *Clerk-Typist*

REGIONAL GEOLOGY SECTION

Ronald D. Stieglitz, PhD, *Geologist and Section Head*  
Richard W. Carlton, PhD, *Geologist*  
Michael L. Couchot, MS, *Geologist*  
Richard M. DeLong, MS, *Geologist*  
Michael C. Hansen, MS, *Geologist*  
Michele L. Risser, BS, *Geologist*  
David A. Stith, MS, *Geologist*  
Robert G. Van Horn, MS, *Geologist*  
Joel D. Vormelker, MS, *Geologist*  
Jonathan A. Aisner, *Conservation Aide*  
James F. Swartz, *Conservation Aide*  
*Geochemistry laboratory*  
Donald L. Streib, PhD, *Geochemist in charge*  
George Botoman, MS, *Geologist*  
Norman F. Knapp, PhD, *Chemist*  
E. Lorraine Partlow, *Laboratory Technician*

SUBSURFACE GEOLOGY SECTION

Adriaan Janssens, PhD, *Geologist and Section Head*  
Jeffrey B. Hermann, BS, *Geologist*  
Frank L. Majchszak, MS, *Geologist*  
James Wooten, *Geologist Aide*  
Linda C. Gearheart, *Clerk*

LAKE ERIE SECTION

Charles H. Carter, PhD, *Geologist and Section Head*  
D. Joe Benson, MS, *Geologist*  
Donald E. Guy, Jr., BA, *Geologist*  
Walter R. Lemke, *Boat Captain*  
Dale L. Liebenthal, *Conservationist*  
Lynn M. Gerold, *Clerk-Typist*

PUBLICATIONS SECTION

Harold J. Flint, *Cartographer and Section Head*  
James A. Brown, *Cartographer*  
Donald R. Camburn, *Cartographer*  
Philip J. Celnar, BFA, *Cartographer*  
James E. Hairston, *Cartographer*  
Leslie R. Lewis, BFA, *Cartographer*  
Jean M. Leshner, *Photocopy Composer*

STATE OF OHIO  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF GEOLOGICAL SURVEY  
Horace R. Collins, Chief

Information Circular No. 42

**CATALOG OF  
OIL AND GAS WELLS IN  
"NEWBURG" (SILURIAN) OF OHIO**

by

A. Janssens

Columbus  
1975



## CONTENTS

	Page
Abstract .....	1
Introduction .....	1
“Newburg” carbonate zone(s) .....	1
Williamsport Sandstone .....	5
References cited .....	5
Data tables .....	7-19

## FIGURES

1. Location map .....	2
2. Representative nuclear logs of “Newburg” tests .....	in pocket
3. Williamsport wells in southeastern Meigs County .....	4

# CATALOG OF OIL AND GAS WELLS IN "NEWBURG" (SILURIAN) OF OHIO

by  
**A. Janssens**

## ABSTRACT

A list has been compiled of all wells in Ohio that have either produced or have had a reported show of 1 barrel of oil or 100,000 cubic feet of gas in the "Newburg" (Silurian). As the term is used in Ohio, the "Newburg" is found in at least two stratigraphic positions. Most common are porous zones in the Lockport Dolomite (Middle Silurian), but in places the porous zones occur probably in the base of the overlying Salina Group. Twenty four counties in central and

northeastern Ohio have reported production or shows from these porous zones. The second stratigraphic position is within the C unit of the Salina Group. In this position the "Newburg" is a quartzose sandstone which is productive in a small area in Meigs County in southeastern Ohio. Production here is an extension of a productive trend in West Virginia, where this sandstone is known as the Williamsport Sandstone (Upper Silurian).

## INTRODUCTION

In this publication are listed all wells in Ohio that either have produced from the "Newburg" or have had a show of at least 100,000 cubic feet of gas per day (100 MCFG) or at least one barrel of oil per day (1 BO). As used by drillers, the "Newburg" comprises at least two stratigraphic horizons that have distinctly different lithologies. The first and areally most important is the "Newburg" porous carbonate (fig. 1). The other horizon, to date productive only in part of Meigs County, in southeastern Ohio (fig. 1), consists of quartzose sandstone and is properly called the Williamsport Sandstone (Upper Silurian). Stratigraphically, the Williamsport Sandstone lies several hundred feet above the "Newburg" porous carbonate.

Both "Newburg" carbonate and Williamsport Sandstone occur within a thick lime sequence referred to by drillers in Ohio as the "Big Lime." This unit extends stratigraphically from the base of the Lockport Dolomite (Middle Silurian) to the top of the Delaware or Onondaga Limestone (Middle Devonian). The "Big Lime" is underlain, in descending order, by the Rochester Formation, a predominantly shale unit, and the unit referred to by drillers as "Packer Shell" (fig. 2A). The "Packer Shell," a limestone or dolomite that may be split by a thin shale, is recognized as a marker bed in most places in eastern and central Ohio. In eastern Ohio the "Packer Shell" is underlain by the heavily drilled "Clinton" sandstone; toward the west (figs. 1, 2A) the "Clinton" sandstone and interbedded shale are replaced, in ascending order (fig. 2B), by limestone or dolomite of the Brassfield Formation and shale of the Cabot Head Formation.

It is evident from drillers' and nuclear logs that the "Newburg" porous carbonate may lie stratigraphically any-

where within the Lockport Dolomite (or Group) and that in several places its stratigraphic range extends into the Salina Group, which overlies the Lockport. The Salina Group includes the evaporite-bearing rocks (salt, anhydrite, and gypsum) of eastern Ohio. The Williamsport Sandstone ("Newburg" of West Virginia) lies within the C unit of the Salina Group (fig. 2C).

The information about the "Newburg" wells listed in this report has been taken from drillers' reports. In several counties the "Newburg" carbonate is reported in many wells to have a "show of gas" or a "show of oil," but, unless it was reported that the show was at least 100 MCFG or 1 BO, these wells are not included in the listing. For example, the driller's log of the Atlas #1 Batzli, a dry hole drilled in 1962 to the "Clinton" in sec. 10, Hanover Township, Columbiana County, reports a "show of gas" in the "Newburg" carbonate, which here lies 70 feet above the base of the Lockport and 265 feet above the "Packer Shell." The "show" was 500 MCFG and led the operator to try a completion in the "Newburg" after finding the "Clinton" dry. However, as is commonly the case, the "Newburg" went to water in the completion attempt. Undoubtedly numerous unlisted wells have had shows in the "Newburg" carbonate.

## "NEWBURG" CARBONATE ZONE(S)

The "Newburg" carbonate zone received its name from the town of Newburg (now Newburgh Heights?) near Cleveland in Cuyahoga County. A well drilled at Newburg in 1886 found gas 200 feet below the lowest salt bed (Orton, 1888, p. 352). The subsequent search for gas in the "Newburg" in the Cleveland area has been recorded by Cushing and others (1931, p. 116-120); because their report



# "NEWBURG" OIL AND GAS WELLS

is the only source of this information and has been out of print for a number of years, the "Newburg" information is quoted (p. 116-119):

The oldest well in the [Cleveland] district that produces rock gas was drilled in 1886, in Newburg, for the corporation then known as the Cleveland Rolling Mill Co. . . . This well was 3,000 feet deep and was thought to have reached the Trenton horizon. Two "sands" showing small amounts of oil were recorded in the Niagara limestone at depths of 2,658 and 2,686 feet. This is about the horizon of the so-called Newburg sand, which recent drilling operations have proved to be of some value as a source of gas and oil. The rock pressure was reported to be 400 to 500 pounds to the square inch, but the volume was only 14,000 to 16,000 cubic feet daily.

The discovery of gas and oil in Clinton (?) rocks in central Ohio between 1900 and 1907 proved an incentive to the continuation of prospecting northward, and as a result several thousand acres west of Kams and Berea was leased for gas and oil rights between 1905 and 1907 by the East Ohio Gas Co. and the Logan Gas & Fuel Co. The

former company did most of the drilling and was still at work in 1908. It also purchased the site of the Newburg Salt Co. in Mill Creek Valley, and in 1907 and 1908 it deepened the old salt wells to the horizon of the Clinton (?) beds, which are now generally considered to be older than the true Clinton of New York. In most places the wells were unsuccessful, and few of them were even capped. One of these wells was fairly successful, however, and furnished the second example of deep-seated reservoir gas in the district. This well was drilled by the East Ohio Gas Co. at North Ridgeville, Lorain County, and was finished in June, 1908. . . .

At the time of casing the rock pressure was 840 pounds to the square inch, and the open flow of gas was reported to be 250,000 cubic feet a day. The supply from this well was used to light and heat several houses. The "show of oil" at 2,200 feet is undoubtedly at the horizon of the Newburg sand of present operations.

The next development in deep drilling for gas in this district, so far as the writer knows, was on October 17, 1911, when the Newburg Brick & Clay Co., near Warner and Canal Roads, South Newburg, "brought in" a gas and oil well at a depth of 2,520 feet. It was found in a "sand" between limestones of Niagara age, and this

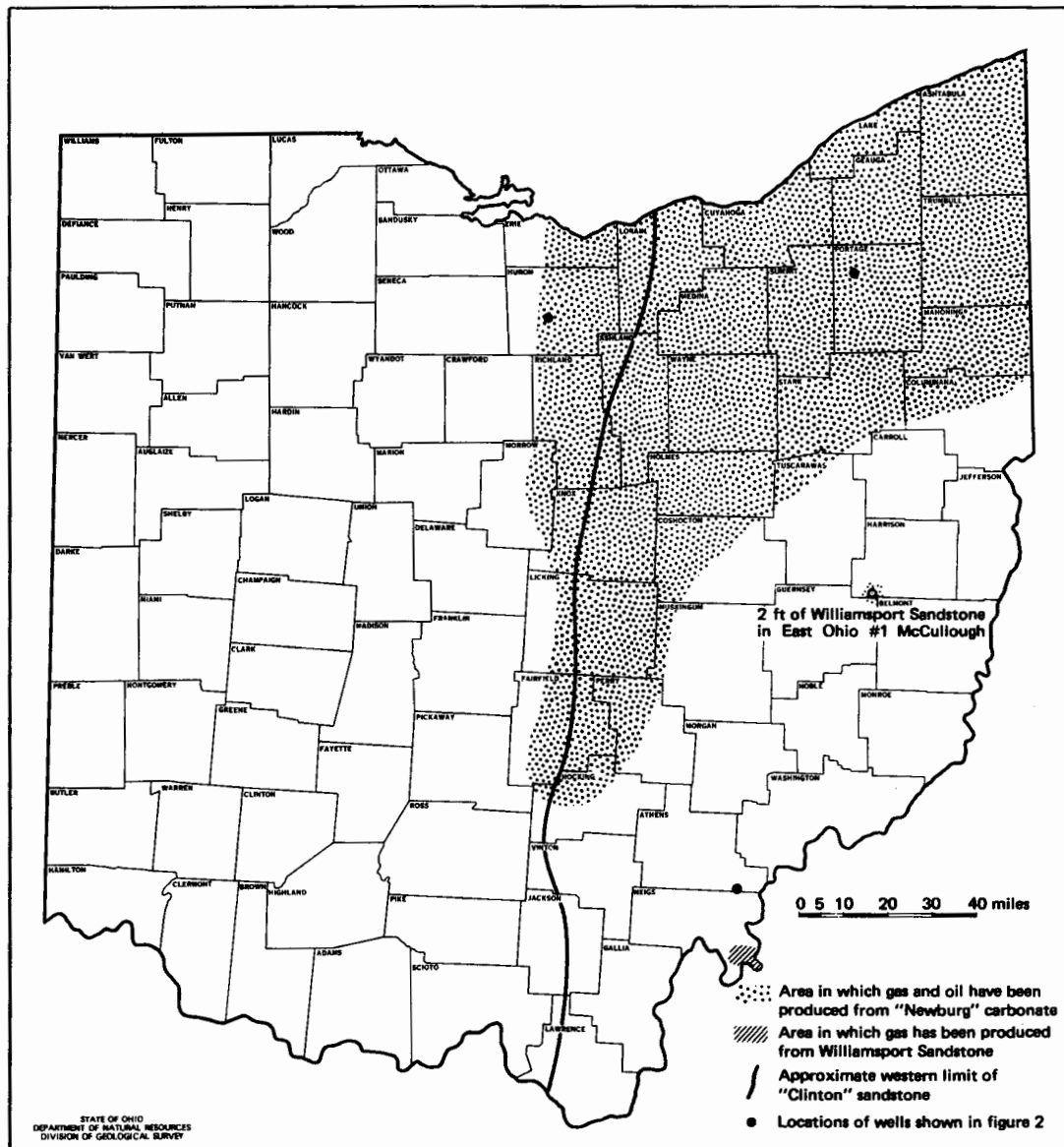


Figure 1.— Location map

bed has since been called the Newburg sand. The well was still yielding both gas and oil in December, 1915.

Two wells were finished to the so-called Clinton sand, at a depth of 2,740 feet, in February, 1912, by the National Carbon Co. and the Winton Motor Carriage Co., near Highland Avenue, Berea Road, and the New York Central Railroad. Both wells yielded about 1,000,000 cubic feet of gas daily, and the pressure was about 1,100 pounds to the square inch. There was little drilling from that time until late in 1913, when several good wells were drilled in Lakewood. Early in 1914 several other successful wells were drilled in Lakewood and West Park, but no actual boom started until January 30, 1914. On this date, at the plant of the J. L. & H. Stadler Rendering & Fertilizer Co., South Brooklyn, gas was found at about 2,400 feet in the Newburg sand. The initial flow of the well was about 12,000,000 cubic feet, and the rock pressure was 950 pounds to the square inch. The production dropped to about 3,000,000 cubic feet within six months, and when the service from this well was discontinued in August, 1915, the pressure was only about 100 pounds to the square inch. In April, 1914, there were already 55 producing wells, 10 of which were in the Newburg and the rest in the so-called Clinton sand. Drillers came from all parts of the country, and many persons inside the western limits of the city of Cleveland as well as in Lakewood and West Park insisted on having private wells in their own back yards. As a result of this demand drill holes were placed too near together, and the production of the older wells rapidly decreased. There did not seem to be very much decrease in the initial pressure and flow of the newer wells when compared with the earlier ones, but there was a notable decrease in the life of the newer wells.

The average life of the wells of the district is said by an official of the East Ohio Gas Co. to be about eight months; other records show that some wells lasted 12 to 15 months.

The record well of the Cleveland area is stated to be the Swift well, in the Newburg sand at Walworth Avenue and West Twentieth Street, which had an initial flow of 13,500,000 cubic feet.

#### PRODUCING SANDS

The chief sands of economic importance have been called the Newburg and Clinton, and of these the Clinton has produced most of the gas in the Cleveland district. Some persons have applied the name Stadler sand to the Newburg, but the term "Newburg" has priority as well as more common usage. . . .

*Newburg or Stadler sand.*—The horizon of the Newburg or Stadler sand is found at depths ranging from 2,300 to 2,600 feet. In some places the Newburg is said to attain a thickness of 30 feet, but in others it is apparently absent. In the Lakewood district its thickness is rarely greater than 15 feet, but it becomes thicker to the south and east, toward the Denison-Harvard district, where the maximum thickness is found. In that vicinity its depth below the surface also increases, owing to the southeast dip. According to reports made by the East Ohio Gas Co., the Newburg ranges from 3 to 17 feet in thickness. At the pioneer well of the Newburg Brick & Clay Co. the sand was penetrated to a depth of 15 feet, a total depth of 2,520 feet being reached. The gas sand from this well was grayish, soft, and brittle and showed abundant cleavage planes. In polarized light even the smallest fragments showed high interference colors, which characterize certain minerals of very high double refraction. This sand dissolved almost wholly in cold dilute hydrochloric acid, and the solution showed little if any trace of iron. The properties noted previously are those of a fairly pure limestone, composed of calcite or dolomite. Another specimen of Newburg sand was grayish red and contained grayish, reddish-brown, and grayish-black particles, so that it might have been a mixture of three rocks. This sand was easily crushed, but some of the particles were hard enough to scratch glass. The grayish particles showed high double refraction and dissolved readily in cold dilute hydrochloric acid. The reddish-brown particles dissolved less readily, and the other particles were insoluble; the solution was colored yellow with iron chloride. This sand was calcareous but certainly originated from a more impure limestone than that obtained from the Newburg Brick & Clay Co.'s well.

The Newburg sand is therefore a calcareous or dolomitic limestone, more or less pure, and not a quartzose sandstone like the Clinton sand. It probably consists of a porous limestone similar to the Trenton (?) limestone of the Findlay-Fostoria region. The Newburg sand occurs in what is called the Big lime and belongs to the Niagara epoch of the Silurian. The horizon probably corresponds to that of the Lockport dolomite. Some of the wells that have been drilled to this sand without finding gas were continued down to the Clinton sand. Chemically the gas from the Newburg sand is said to be

little if any different from the Clinton gas. . . . The Newburg has been most successfully prospected in the southern and southwestern parts of Cleveland, known as Newburg and Brooklyn, especially in what is called the Denison-Harvard district, where the sand is thickest. One of the largest wells to produce gas from the Newburg sand was the Stadler well, at Denison Avenue and the Belt Line, which really started the gas boom in the Cleveland territory. Although this well came in with 12,500,000 cubic feet of gas, at a rock pressure of 950 pounds to the square inch, it lasted only from January 30, 1914, to about August, 1915.

The use of the term "sand" for the "Newburg" carbonate has been persistent and has led to confusion, continuing today, regarding the true (dolomite) lithology of the producing horizon(s). For example, Wilmarth (1938, p. 1482) referred to the "Newburg" as a "subsurface sand" and did not state whether the "sand" was carbonate or quartzose.

Bownocker (1910, p. 39, 41) mentioned the occurrence of oil- and gas-bearing "sand" ("Newburg" carbonate) in Hocking and Fairfield Counties. In discussing hydrocarbon production in Richland County (p. 57), he stated that a well 2 miles south of Mansfield drilled in 1906 to the "Clinton":

. . . was not without reward. At a depth of 1,910 feet or 610 feet in the "Big lime" a heavy flow of gas was struck. The closed or rock pressure is reported as having been 580 pounds and the open flow 1,200,000 cubic feet per day. From that time the drill has been at work irregularly in the neighborhood, and in all about 16 wells have been drilled to the "lime," only two or three of which were failures. The wells varied considerably in production, the largest having started at 3,500,000 cubic feet per day. The producing rock is said to be a limestone and not a sandstone in the "lime." Its position is usually about 640 feet in that formation, but figures of 390 and 500 are reported. The gas has a pungent odor and is not suitable for domestic purposes, but does very well for boilers. In drilling, care must be exercised not to strike the "big water" lying below the gas rock.

Although production from the "Newburg" carbonate is widespread (fig. 1), the unit is probably best known from the Cleveland area. The Mayfield pool on the east side of Cleveland was described in detail by Rothrock (1948). The only other detailed report besides his and that of Cushing and others (1931) is by Multer (1963) on the Moreland pool in Wayne County. Multer described the "Newburg" as follows (p. 11-13):

The so-called Newburg sand of the Moreland pool is a dolomite showing variable color and texture and containing numerous structures and types of vugs. . . .

Study of the Newburg section in cores, well cuttings, and insoluble residues [of the Moreland pool] indicates that there are two main types of dolomite. These two types are usually found with gradational boundaries, and are called the brown phase, and the gray phase, in this report. Both types can be found above or below the top of the Newburg as defined by the local drillers in the Moreland pool, but the gray phase is dominant above, and the brown phase is dominant at and below, the upper Newburg contact. . . .

Vugs formed by the solution of fossils in the Newburg dolomite considerably increase the effective permeability and porosity of the rock. Three zones of fossil concentration were found in the two cores described. All fossils are dolomitized, and most of them are difficult to recognize or identify. However, stromatoporoids, brachiopods, and at least two genera of gastropods and corals were observed. All fossils showed random orientation. In both cores fossil zones occurred at the top of the Newburg as recorded by the driller. Voids within stromatoporoids [occur]. . . . Some of the largest vugs (as much as 75 mm in diameter) have concavo-convex shell-like shapes. Some fossils are composed of solid microcrystalline dolomite . . . , while others contain numerous vugs. Vugs ranging from pinpoint size (less than 1 mm) to 75 mm in diameter and irregular in outline . . . were also found in dolomite containing no observable



fossils.

Stylolitic seams occur mainly in the brown phase of the dolomite. Amplitude of the stylolites ranges from 10 to 20 mm. Black clay was commonly found partially filling the seams. In [one] core, fine, open vertical fractures extend 20 mm vertically away from the partly filled stylolite. Stylolites are commonly oil stained . . . and most are fairly porous and permeable. Occasionally, stylolites can be observed separating two size grades of dolomite with bedding planes interlocked in stylolitic fashion, indicating solution along the contact.

Vug filling consists mainly of microcrystalline dolomite and anhydrite with traces of pyrite and galena. Microcrystalline dolomite usually occurs as a thin lining on the walls of the cavities, and crystalline anhydrite occurs within but usually not completely filling the voids. This mineralization represents secondary deposition within the vugs by solutions after the voids were formed. The volume and extent of this secondary mineralization can control permeability and porosity within the rock.

Many older "Newburg" wells drilled in the non-coal-bearing part of central Ohio have poor and incomplete records because for wells drilled outside the state's coal-

bearing townships completion reports were not required until 1951, and surveyed location maps were not required until 1965. Without accurate locations and wellhead elevations it is not possible to make structure contour maps. Generally, "Newburg" carbonate production is found as a result of drilling of older formations, the "Clinton" sandstone in eastern Ohio and Cambrian rocks in the central part of the state, where the "Clinton" is absent because of facies changes. For this reason, the data tables include depths to the "Packer Shell," so that the listed information permits the making of thickness maps of the interval between the top of the "Newburg" and the top of the "Packer Shell." As far as is known this is a conformable sequence, unlike the section from the top of the "Newburg" to the top of the "Big Lime." The latter section includes multiple unconformities at the Silurian-Devonian contact or within the Devonian portion of the "Big Lime."

The evidence shows that the porous "Newburg" carbonate is irregular in lateral and vertical extents, making the

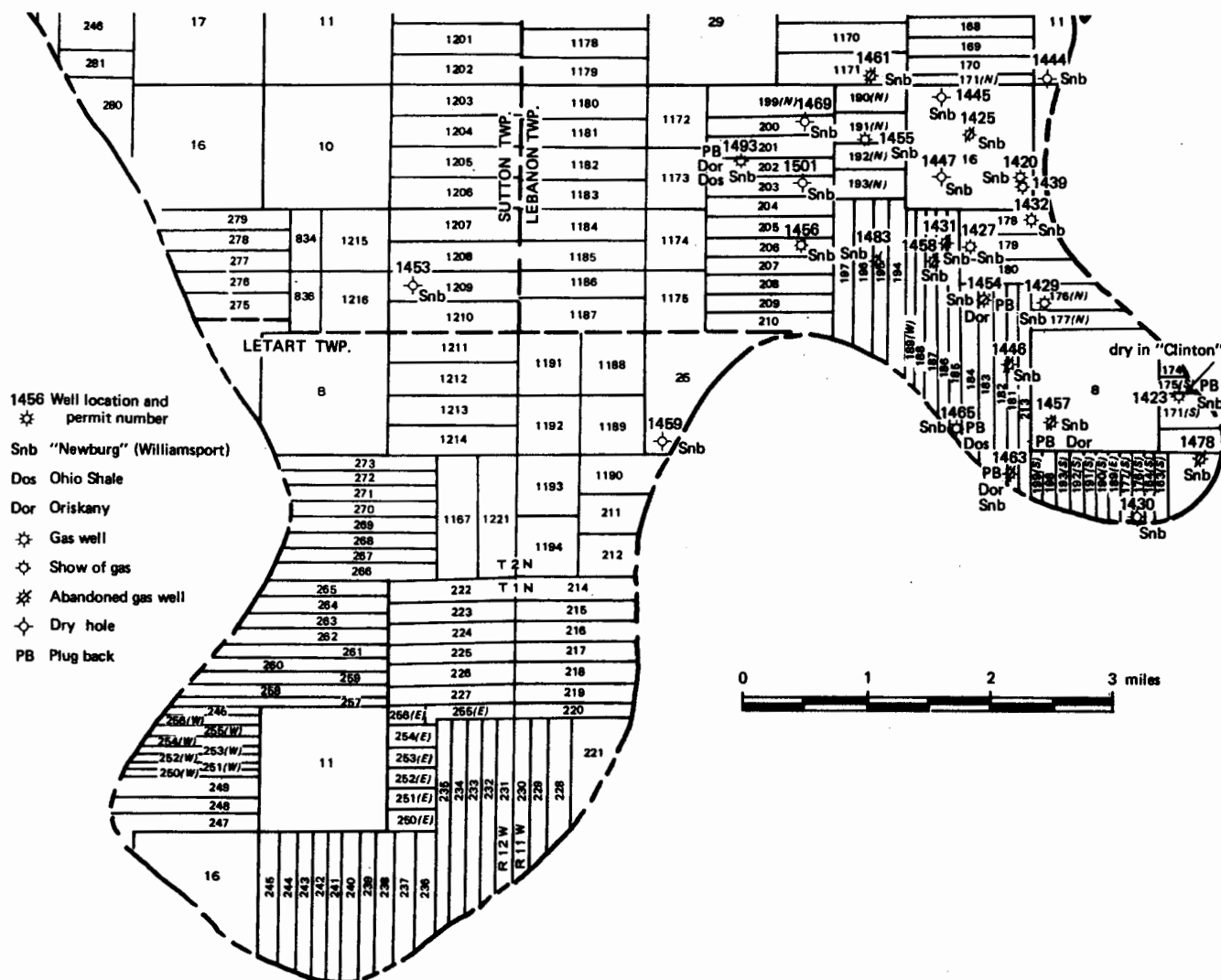


Figure 3.—Williamsport wells in southeastern Meigs County, Ohio.

horizons difficult to explore for. Drilling histories reveal that the "Newburg" is best drilled with cable-tool rigs in order to minimize the risk of contaminating the oil or gas with the underlying water. In many wells the "Newburg" is acidized, but not uncommonly wells go to water in the acidizing process.

### WILLIAMSPORT SANDSTONE ("NEWBURG" OF WEST VIRGINIA)

The Williamsport Sandstone (Upper Silurian) is a very fine- to fine-grained sandstone composed of subangular to rounded quartz grains. It is up to 50 feet thick in western West Virginia (Patchen, 1967, p. 8), but averages only 6 feet in thickness in Meigs County, Ohio (Shearrow, 1971, p. 1). Stratigraphic correlations in Ohio indicate that the Williamsport is a westward-thinning sandstone lying within the Salina Group C unit (fig. 2C). This correlation is corroborated by the occurrence of scattered rounded sand grains within the C unit in Ohio as far west as the Indiana and Michigan borders. At present the Williamsport is productive only in a small area in Meigs County (fig. 3), but the presence of friable quartzose sandstone with a thickness of 2 feet in the East Ohio #1 McCullough well in sec. 10, Freeport Township, Harrison County (fig. 1), in the stratigraphic position of the C unit, suggests that the Williamsport may extend north-eastward from Meigs County and may yet be found

productive elsewhere in southeastern Ohio. A show of gas has been found in the Williamsport in Troy Township, Athens County, some 15 miles north of the producing area in Meigs County.

Williamsport production in Meigs County is an extension of production found in West Virginia in Jackson County and other counties to the south. Patchen (1967, p. 2, 7) has recently explained how the confusion of the geologic names Williamsport and "Newburg" arose:

The Newburg sand of the driller is considered to be the subsurface equivalent of the Williamsport Sandstone which outcrops in Grant and Mineral counties [West Virginia] (Woodward, 1959; Overbey, 1961). The term "Newburg" was introduced into the geologic literature by Stout (1935) for a subsurface sand, 0 to 30 feet thick, lying near the contact between the Salina and Niagara Formations in Ohio. Early correlations between Ohio and West Virginia suggested that the Newburg of Ohio was possibly equivalent to the Keefer Sandstone of West Virginia (Tucker, 1936), or the Big Six sand of Kentucky (Martens, 1939). . . .

Ulteig (1964) believes that the term Newburg sand as used in Ohio has no stratigraphic significance. It was originally used to designate a porous zone below the Niagaran-Cayugan contact and is used in Ohio at the present time for any interval in the Lockport Group (Middle Silurian) composed of porous, finely crystalline dolomite with the drilling characteristics of a sandstone.

As such, the term "Newburg sand", as originally defined and used in Ohio, has no stratigraphic position in Ohio, and no lithologic equivalent in West Virginia. In West Virginia the appropriate term should be Williamsport Sandstone. However, the term "Newburg" is now so deeply entrenched in West Virginia drilling terminology that it probably should continue to be used as the subsurface equivalent of the Williamsport Sandstone.

### REFERENCES CITED

- Bownocker, J. A., 1910, The Bremen oil field: Ohio Geol. Survey Bull. 12, 68 p.
- Cushing, H. P., Leverett, Frank, and Van Horn, F. R., 1931, Geology and mineral resources of the Cleveland district, Ohio: U.S. Geol. Survey Bull. 818, 138 p.
- Martens, J. H. C., 1939, Petrography and correlations of deep-well sections in West Virginia and adjacent States: West Virginia Geol. Survey, v. 11, 255 p.
- Multer, H. G., 1963, Geology of the Silurian producing zones in the Moreland oil pool, Wayne County, northeastern Ohio: Ohio Geol. Survey Rept. Inv. 46, 48 p.
- Orton, Edward, 1888, The Berea grit as a source of oil and gas in Ohio: Ohio Geol. Survey, v. 6, p. 311-409.
- Overbey, W. K., 1961, Oil and gas report on Jackson, Mason, and Putnam Counties, West Virginia: West Virginia Geol. and Econ. Survey Bull. 23, 26 p.
- Patchen, D. G., 1967, Newburg gas development in West Virginia: West Virginia Geol. and Econ. Survey Circ. 6 (revised), 37 p.
- Rothrock, H. E., 1948, Mayfield pool, Cuyahoga County: Am. Assoc. Petroleum Geologists Bull., v. 33, p. 1731-1746.
- Shearrow, G. G., 1971, Williamsport sand development, Meigs County, Ohio area: presented at Winter mtg., Ohio Oil and Gas Assoc., Columbus, March 5, 1971 [7 p.].
- Stout, W. E., 1935, Natural gas in central and eastern Ohio, in Geology of natural gas: Am. Assoc. Petroleum Geologists, p. 897-914.
- Tucker, R. C., 1936, Deep-well records: West Virginia Geol. Survey, v. 7, 560 p.
- Ulteig, J. R., 1964, Upper Niagaran and Cayugan stratigraphy of northeastern Ohio and adjacent areas: Ohio Geol. Survey Rept. Inv. 51, 48 p.
- Wilmarth, M. G., 1938, Lexicon of geologic names of the United States (including Alaska): U.S. Geol. Survey Bull. 896, 2396 p.
- Woodward, H. P., 1959, General stratigraphy of the locality, in A symposium on the Sandhill well, Wood County, West Virginia: West Virginia Geol. Survey Rept. Inv. 18, p. 9-28.

DATA TABLES

ABBREVIATIONS

AA	<i>after acidizing</i>	Nbg	<i>"Newburg"</i>
AF	<i>after fracturing</i>	NR	<i>not reached</i>
AS	<i>after shot</i>	PB	<i>plugged back</i>
BO	<i>barrels of oil</i>	PP	<i>plugging permit</i>
CI	<i>"Clinton"</i>	Q	<i>quarter</i>
DF	<i>derrick floor</i>	RO	<i>reopened</i>
div	<i>division</i>	sec	<i>section</i>
fr	<i>fraction</i>	SI	<i>shut in</i>
GL	<i>ground level</i>	SSG	<i>slight show of gas</i>
KB	<i>Kelly bushing</i>	T	<i>topographic</i>
MCFG	<i>thousand cubic feet of gas</i>	TD	<i>total depth</i>
N	<i>natural</i>	tr	<i>tract</i>
NA	<i>not available</i>	undiv	<i>undivided</i>

Notes on production:

1. Permits 691, 1486, 1588, and 2295 in Perry Township, Morrow County, had a cumulative production of 705,000 MCFG (information provided by Robert B. Waggoner, Jr., October 1974).
2. As of January 1975, the Moore wells listed for Franklin and Perry Townships, Morrow County, had produced in excess of 2,000,000 MCFG, most of the production coming from the wells in Perry Township (information provided by Loyd R. Baskin, March 1975).
3. Permit 1425 in Lebanon Township, Meigs County, had a cumulative production of 1,777,513 MCFG between May 1969 and July 1972. Permits 1420 and 1439 in Lebanon Township, Meigs County, had a cumulative production of 2,247,154 MCFG between February 1969 and August 1974 (information provided by George G. Shearrow, January 1975).



# DATA TABLES

7

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Line'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Ashland	Jackson	Sec 8	43	Ohio Fuel	Priest & Kaufman	1	1200 GL	1935	1670	2591	2792	271	70	26		
	Jackson	Sec 17	51	Ohio Fuel	Talbot	1	1278 GL	1936	1740	2611	NR		119 AA		1963	Domestic gas well
	Mohican	Sec 2	1977	Ohio Fuel	Jenny	1	1089 GL	1961	1757	2657	NR	103			1946	Deepened to CI
	Mohican	Sec 7	2355	Kingwood	Allen	1	977 GL	1965	1527	2350?			970 N		1928	PB from CI
	Montgomery	Sec 7	311	Ohio Fuel	Masters	1		1920	1352	2206	2398		180 N		1968	
	Montgomery	Sec 8		Ohio Fuel	Kindig	1		1920	1340	2195	2380		3,212			
	Orange	Sec 2		Ohio Fuel	Brandt	1	1138 GL	1926	1460	2345	NR					
	Orange	Sec 8		Ohio Fuel	Monteith	2		1924	1385	2230	2433	100				
	Orange	Sec 8		Ohio Fuel	McBride	9	1156 GL	1925	1400	2266	2486	200				
	Orange	Sec 12		Ohio Fuel	McConnell	1	1178 GL	1930?	1555	2441	2636	314				
	Orange	Sec 13	129	Ohio Fuel	Gantz	1	1183 GL	1940	1805	2482	NR		2,010		1974	
	Orange	Sec 13	132	Ohio Fuel	Gantz	2	1214 GL	1941	1605	2525	2754		1,118 N		1958	Deepened to CI
	Orange	Sec 16		Ohio Fuel	Sharick	1	1135 GL	1928	1420	2294	2494		136		1931	
	Orange	Sec 21	17	Ohio Fuel	Graven	1	1095 GL	1929	1390	2263	2497		611		1934	Deepened to CI
	Orange	Sec 21	2386	Ohio Fuel	Loving	1	1112 GL	1930	1417	2282			350		1966	Deepened to CI
Ashtabula	Orange	Sec 21	92	Ohio Fuel	Sharick	1	1104 GL	1928	1410	2288	2447		1,534		1937	Deepened to CI
	Orange	Sec 21		Ohio Fuel	Sharick	2	1090 GL	1933	1413	2268	2458		1,328		1933	Deepened to CI
	Orange	Sec 26	552	Ohio Fuel	Barnhill	1	1180 GL	1929	1470	2473	NR	1,048			1951	
	Orange	Sec 26	739	Ohio Fuel	Steiner	1	1172 GL	1929	1560	2440	NR		495			
	Orange	Sec 29		Ohio Fuel	Lewis	2	1083 GL	1929	1375	2232	2432		212		1952	
	Conneaut	Lot 33	76	Bonaventura	Bryant	1	854 GL	1959	1752	2880	2960		500	20		
	Saybrook	Lot 6	212	Mutual	Durey	1	640 GL	1969	1380	2440	NR		1,500		1970	Deepened from Oriskany
	Saybrook	Lot 27		Simpson	Collins	1	678 GL			2335?	NR					
	Hanover	Sec 10	539	Atlas	Batzli	1	1210 GL	1962	3636	5379	5643	500				
	Bethlehem	2Q	2	Ohio Fuel	Crowl	1	905 GL	1936	2227	2914	3396	1,880	300 N		1958	
Coshocton	Bethlehem	2Q	664	Patten	Crowl	2		1954	2330	2900	NR		475		1956	
	Bethlehem	2Q	678	Patten	Crowl	3		1955	2308	2975	NR		464 N			
	Bethlehem	2Q	768	Patten	Crowl	4		1955	2320	2975	NR		450 AS			
	Bethlehem	2Q	835	Patten	Crowl	5		1956	2235	2894	NR		230 N			
	Bethlehem	2Q	836	Patten	Crowl	6		1956	2295	2969	NR		475 AS		1969	
	Bethlehem	2Q	748	Natol	Knox	1		1955	2300	2979	3475	140				
	Bethlehem	2Q	893	Patten	Patten	1		1958	2362	3025	NR					
	Clark	63-A	235	Ohio Fuel	Schiebe	3	1057 GL	1934	2315	3107	3473	300		50		Deepened to CI
	Clark	2Q		Oxford	Schiebe	4		1948	2367	3161						
	Clark	2Q	382	Oxford	Young	3		1951	2014	2725	NR		270			
Erie	Perry	Sec 7	NA	Preston	Mikesell	1	1931	2190	2850	3189		149				
	Tiverton	Sec 9	1434	Wiser	Baker	1	1050 GL	1960	2070	2650	3165	92	5,800 AA	33	1961	Deepened to CI
	Tiverton	Sec 9	1488	Wiser	Gross	1		1961	2095	2658	3195				1962	Deepened to CI
	Tiverton	Sec 10	1822 RO	Union	Fortune	1		1963	1974	2534	NR	"gas"			1966	
	Tiverton	Sec 10	1389	Wittmer	Spurgeon	1		1960	1975	2554	NR	188	819 AA		1968	
	Huron	Lot 27, tr 3	D-3	Huron	Lakeshore RL	1	593 GL	1919	20?	830?		200				
	Huron	Lot 71	D-1	Heinberger	Straus	1		1918	93	950	1285?	300				
	Florence	Lot 73	40	Cassidy	Hale	1	785 GL	1973	610				679 AA			
	Florence	Lot 73	39	Cassidy	Cleveland Quarries	1	812 KB	1973	600	1428	NR		2,600 AA			
	Florence	Lot 74	33	Kubat	Peasley-Hunter	1	801 GL	1968	628	1486	NR		1,680 AA			
Florence			27	Sun	Hunter et al.	1	809 KB	1987	591	1533	1776		1,680 AA			
			36	Cassidy	Hunter	1	801 KB	1973	595	1526	NR		175 AA			

## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Erie (continued)	Florence	Lot 74	38	Cassidy	Hunter	1	801 KB	1973	595	1526	NR		175 AA			
	Florence	Lot 84	61	Cassidy	Bettcher	1	786 KB	1974	605	NR	NR		105 AA			
	Florence	Lot 97	36	Cassidy	Herman-Wendt	1	822 KB	1973	656	1602	NR		188 AA			
	Florence	Lot 98	51	Sun	Krysk	1	831 KB	1973	640	1580	NR	679				Drilled to Cambrian
	Florence	Lot 98	11	Sun	Krysk-Wakefield et al.	1	828 KB	1966	637	1666	1799					
Fairfield	Florence	Lot 98	60	Sun	Wakefield	1	766 KB	1974	587	1534	NR		366 AA			
	Vermillion	Lot 10	45	Cassidy	Novy	1	739 KB	1973	554	NR	NR					
	Pleasant	Sec 23	214	City Nat. Gas	Hartman	1		1932	1540	1897	NR		250 N		1952	
	Pleasant	Sec 23	106	City Nat. Gas	Hartman	3		1932	1540	NR	NR					
	Walnut	Sec 13	242	Natol	Wiseman	1	985 GL	1955	1528	1968	NR		500 N		1958	
	Walnut	Sec 14	NA	Natol	J. S. Holliday	1	975 GL	1950?	1500?	1961	NR		300 AS	30	1961	Waterflood
	Walnut	Sec 14	104	Natol	J. S. Holliday	2	973 GL	1940	1512	1984	NR				1961	Waterflood
	Walnut	Sec 14	186	Natol	J. S. Holliday	3	982 GL	1951	1500	1953	NR		216 N	60 AS	1961	Waterflood
	Walnut	Sec 14	188	Natol	J. S. Holliday	4	987 GL	1951	1500	1938	NR		173 AS	173 AS	1967	Waterflood
	Walnut	Sec 14	197	Natol	J. S. Holliday	5	980 GL	1951	1510	1943	NR		103 AS	103 AS	1961	Waterflood
	Walnut	Sec 14	200	Natol	J. S. Holliday	6	986 GL	1951	1520	1972	NR		75 AS	75 AS	1962	Waterflood
	Walnut	Sec 14	208	Natol	J. S. Holliday	7	974 GL	1952	1505	1933	NR		92 AS	92 AS	1967	Waterflood
	Walnut	Sec 14	NA	Natol	T. Holliday	1	962 GL	1950	1490	NR	NR		25 AS	25 AS	1961	Waterflood
	Walnut	Sec 14	193	Natol	T. Holliday	2	987 GL	1950	1490	1930	NR		20 AS	20 AS	1961	Waterflood
	Walnut	Sec 14	199	Natol	T. Holliday	3	971 GL	1951	1490	1944	NR		10 AS	10 AS	1961	Waterflood
	Walnut	Sec 14	NA	Gas Producers	J. & S. Holliday	2		1940	1984	NR	NR					
	Walnut	Sec 14	92	Gas Producers	Corbett	1	976 T	1939	1525	1983	NR	94				
Geauga	Walnut	Sec 14	201	Natol	Corbett	1	984 T	1951	1518	1948	NR		140 AS	140 AS	1967	Waterflood
	Walnut	Sec 23S	NA	Natol	Berry	2	996 GL	1936	1485	NR	NR		"oil"	"oil"	1961	
	Walnut	Sec 23S	NA	Natol	Berry	3	998 GL	1939	1511	NR	NR		108	60		
	Walnut	Sec 23S	188	Natol	Berry	7	984 GL	1950	1503	1933	NR		139 AS	139 AS	1961	Waterflood
	Walnut	Sec 23S	189	Natol	Berry	8	986 T	1950	1520	1948	NR		725	150 AS	1961	Waterflood
	Walnut	Sec 23S	209	Natol	Berry	9	1001 T	1952	1531	1962	NR		13 AS	13 AS	1961	Waterflood
	Walnut	Sec 23S	185	Natol	Plum	5	996 T	1945	1522	1989	NR		10	10	1961	Waterflood
	Walnut	Sec 23S	462 PP	Natol	Baldwin	3		1913?	1700	3020?	NR		60 AS	60 AS	1967	
	Walnut	Sec 36	NA	Logan	Holcomb	1	949 GL	1907	1520	NR	NR	3,500				TD 1900'
	Auburn	Lot 7, tr 2	58	Am. Natl.	May	1	1163 KB	1973	2143	2700	NR	20,000	8,000	8		At Little Mountain
Hocking	Chardon	Lot 2, tr 4	NA	NA	Hitchcock		1015 T	1913?	1700	3020?	NR		300			1 mi N of Mitchella Mill
	Chardon		NA	NA	Hitchcock			1912	1700	2972	NR		260	"oil"	1950	"Went to water AA"
	Chardon	Lot 3, sec 1	NA	Best	King	1		1950	1907	3180	NR					
	Chardon	Lot 3, sec 4	NA	NA	Maltby				1560	2808	NR		130	195		PB to Nbg
	Munson	Lot 4, E div	NA	Best	Best	1	1228	1947	2121	3348	3725	30		8 AA		
	Falls	Sec 3	866	Holl	Geiger	2		1961	1667	2072	2538		200 est		1962	Deepened to C1
	Falls	Sec 3	591	Holl	Chent	1		1957	1683	2105	NR		500 N		1911	
	Laurel	Sec 29	NA	Logan	Donley	1		1910	1600	NR	NR		3,500		1911	
Holmes	Marion	Sec 29	NA	Logan	Donley	2		1910	1615	NR	NR		2,981			
	Marion	Sec 34	800	Oxford	Caso	1		1961	1735	2130	2603	300				
	Marion	Sec 34	654	Holl	Daubenmier	1		1960	1875	2286	NR		800			
	Marion	Sec 34	646	Holl	Poling	1		1959	1740	2158	NR		877		1963	Deepened to C1
	Marion	Sec 34	757	Holl	Shriner	2	1020 T	1960	1842	2250	2714		978 N		1955	Deepened to C1
Knox		Sec 29	510	Ohio Fuel	Kettering	2	1219 GL	1952	1900	2488	2968		103		1958	Deepened to C1
	Knox	Sec 29	149	Ohio Fuel	Spreng	1	1019 GL	1943	1715	2275	2776		145 N			

# DATA TABLES

9

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			BO where indicated (MCFG)	Initial production		Abandoned or drilled deeper	Remarks
									"Big Lime"	"Top of Newburg"	"Top of Packer Shell"		MCFG	BO		
Holmes (continued)	Knox	Sec 29	404	Ohio Fuel	Spreng	3	969 GL	1951	1635	2209	2724		398 N		1961	Deepened to Cl
	Knox	Sec 30	422	Ohio Fuel	Bush	1	1227 GL	1951	1905	2448		188	1,520 N		1963	Deepened to Cl
	Knox	Sec 30	426	Ohio Fuel	Kettering	1	1188 GL	1951	1857	2405	NR		135		1961	Deepened in Nbg
	Knox	Sec 30	393	Ohio Fuel	Kline	1	1214 GL	1950	1887	2438	NR		759 N	43	1963	Deepened to Cl
	Knox	Sec 30	430	Ohio Fuel	Kline	2	1206 GL	1951	1888	2443	2839		1,240 N		1961	Deepened to Cl
	Knox	Sec 30	466	Phillips & Wray	Sidle	1		1952	1889	2444			579 N		1957	Deepened to Cl
	Monroe	Lot 8, 1Q	1690	Buckeye Oil	Hipp-Steimel	1	910 GL	1973	1972	3151	600		337		1970	
	Prairie	Sec 28	1329	H. D. Collins	Hilly	1	974 GL	1985	2091	2827	NR		537		1960	Deepened to Cl
	Prairie	Sec 28	860	H. D. Collins	Miller	1	954 GL	1957	2070	2773	3284		194		1959	Deepened to Cl
	Prairie	Sec 28	848	H. D. Collins	Rumbaugh	1	966 GL	1956	2092	2838	3274		305		1954	Deepened to Cl
	Richland	Sec 1	89	Ohio Fuel	Phillips	1	1036 GL	1941	1964	2581	3099		300		1962	Deepened to Cl
	Richland	Sec 23	1137	Oil Well Drig.	Crider	1-A	1195 GL	1960	2160	2755	3240		2,700 AA		1961	Deepened to Cl
	Richland	Sec 23	1166	Oil Well Drig.	Crider	2	1190 T	1961	2173	2756	3266	550	420 N		1961	Deepened to Cl
	Richland	Sec 23	1176	Wiser Oil	Hawkins-Cooper	3	1252 GL	1961	2210	2799	3303	1,972				"Went to water"
	Richland	Sec 23	1174	Ohio Fuel	Huffman	4	1261 GL	1961	2220	2804	NR		472 N		1967	
	Richland	Sec 23	1171	Ohio Fuel	Huffman	1	1250 GL	1961	2198	2775	NR		1,200 AA			
Huron	Washington	Sec 27	290	Ohio Fuel	McMurray	1	987 GL	1945	1710	2471		168	215 SI AA			
	Bronson	Lot 9, 4Q	81	Lake Shore	Knupke	1	919 DF	1968	605	1432	1616	160				
Knox	Clay	Sec 20	714	Natol	Farmer	1		1953	1860	2424	2800		300 N		1954	Deepened to Cl
	Clay	Sec 25	220	Levin	Clutter	1		1939	1602	2176	NR		"gas and oil"			
	Clay	Sec 25		Brown	Clutter	3		1939	1602	2184	NR		550 SI			
	Clay	Sec 25		Levin	Clutter	4		1939	1570	2135	NR		527 N			
	Clay	Sec 25		Levin	Clutter	5		1939	1614	2206	NR	21	65 SI			
	Clay	Sec 25	1476-1 PP	Twinoaks	Doup	1			1654		NR		"gas"		1963	
	Clay	Sec 25	1476-2 PP	Twinoaks	Doup	2			1650		NR		"gas"		1963	
	Clay	Sec 25	106	Davis & Stout	Evers	1		1936	1565	2143	NR		368 N		1953	
	Clay	Sec 25	808-1	C. A. Davis	Martin	1		1939	1558	2102	NR		150 N		1956	
	Clay	Sec 25	808-2	C. A. Davis	Martin	2		1939	1560	2138	NR					
	Jackson	Sec 1	2010	Shrider	Beckley	1	1145 GL	1970	2100	2860	3063	30 BO				
	Jackson	Sec 7	462	Shuff & Bucy	Cottrell	1		1947	1903	2485	2874		795 N		1948	Deepened to Cl
	Jackson	Sec 7	487	Ohio Fuel	Melick	2	1073 GL	1947	1923	2499	2895				1948	Deepened to Cl
	Jackson	Sec 7	447	Shuff & Bucy	Rine	1		1947	1925	2512	2875		73	8	1967	
	Jefferson	Sec 12N	1352	Smith	Bush	1		1960	1900	2461	NR					
	Jefferson	Sec 12N	644	Perkins	Priest	5		1952	1650	2205	NR	168	393 AS	75	1958	Deepened in Nbg
Lake	Jefferson	Lot 3, 1Q	581	Perkins & Shaffer	Priest	2	925 T	1951	1625	2180	2580		330 N		1961	Deepened to Cl
	Jefferson	Sec 12N	1321	Ohio Fuel	Priest	2	1201 GL	1959	1891	2513	2952		145		1962	Deepened to Cl
	Jefferson	Sec 12N	1376	Erlington	Vess	1		1960	1930	2562	NR		168 N	14		
	Madison	Lot 5, tr 3		Madison	Rand	3	692 GL	1923	1358	2588	2815			3		Abandoned? (Nbg produced?)
Licking	Madison	Lot 5, tr 3		Madison	Foster	1	694 GL		1360	2582	2800			3		Abandoned? (Nbg produced?)
	Madison	Lot 8, tr 3		East Ohio	Colby	1	691 GL	1921	1370	2586	2804			5		Abandoned? (Nbg produced?)
	Bowling Green	Lot 22	1120	Willey	Walser	1		1954	1840	2310	NR		150		1954	"Went to water"
	Bowling Green	Sec 3	788	Adair	Cooperrider	1		1949	1890	2404	2633		480		1950	Deepened to Cl
	Bowling Green	Sec 3	801	Midland Oil	Cooperrider	5		1950	1865	2338	2799		1,550		1951	Deepened to Cl
	Bowling Green	Sec 16		Ohio Fuel	Boring	1	1005 GL		1921	1864	2320		786 N			
	Bowling Green	Sec 16	2068 PP	Ohio Fuel	Johnson	1	1010 GL	1924	1892	2344	2815		190 N		1929	Deepened to Cl



## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Licking (continued)	Bowling Green	Sec 17		Ohio Fuel	Gutridge	1	946 GL			NR?			1,800			
	Bowling Green	Sec 17		Ohio Fuel	Gutridge	1				NR			100			
	Bowling Green	Sec 17		Ohio Fuel	Gutridge	2				NR			500			
	Bowling Green	Sec 17	2572	Shallman	Swinehart	1	1020 GL		1850	2340	NR					
	Eden	Sec 5		C. A. Davis	Woodruff	4		1940	1560	2150	NR		116 SI AS			
	Eden	Sec 25		Ohio Fuel	Sells	1		1921	1732	2232	NR		720 N		1923	
	Fallbury	Sec 19		Preston	Martin	3		1920	1940	2840	2971					
	Franklin	Sec 10		Ohio Fuel	Lake	1		1928	1960	2425	NR	1,000			1936	
	Franklin	Sec 10		Wehrle	Kreager	1		1933		2377	NR					
	Franklin	Sec 10		Wehrle	Kreager	2		1933	1940		NR		15,000	3		TD 2436'
	Hopewell	Lot 4, 3Q		Wehrle	Flint Ridge Coal	184		1929	2100	2576	NR		475			TD 2232'
	Licking	Lot 3, 1Q		Wehrle	Graves	86		1923	1642		NR		"oil"			TD 2250'
	Licking	Lot 3, 1Q	1055	Wehrle	Stinson	2		1923	1690		NR		15	"oil"		TD 2272'
	Licking	Lot 3, 1Q		Wehrle	Stinson	4		1923	1760		NR					TD 2282'
	Licking	1Q		Wehrle	Ice	109		1924	1722		NR		"gas"			TD 2282'
	Licking	1Q		Wehrle	Stinson	1		1923	1755	2265	NR		150	"oil"		
	Licking	1Q		Wehrle	Stinson	3		1923	1720	2249	NR		1,000 AS	10		TD 2227'
	Licking	1Q		Wehrle	Uery	84		1924	1691		NR		50 AS	"oil"		TD 2194'
	Licking	1Q		Wehrle	Hughes	66		1922	1677		NR					TD 2294'
	Licking	1Q		Wehrle	Vermillion	63		1922	1730	2241	NR		1,200 AS	"oil"		TD 2208'
Licking	1Q		Wehrle	Vermillion	2		1923	1691		NR		"oil"			TD 2217'	
Licking	1Q		Wehrle	Wright	74		1922	1680		NR		"gas and oil"	5			
Licking	Sec 10		Ohio Fuel	Jury	1	1054 GL	1937	1776	2305	NR						
Licking	Sec 10	205	McClay	J. Orr	2			1938	1788		NR		1,200		TD 2309'	
Licking	Sec 10	233	McClay	J. Orr	2			1938	1788		NR		1,840			
Licking	Sec 10	237	McClay	T. Orr	1	1110 GL	1938	1821	2313	NR						
Licking	Sec 10		Ohio Fuel	T. Orr	2		1939	1804	2295	NR						
Licking	Sec 15		Columbia	Dilts	2		1917	1639	2125	NR		250		1918		
Licking	Sec 16		Heisey	Swartz	2	980 GL	1915	1672	2195	NR		750				
Licking	Sec 18	1420	Oxford	Edmund	1		1956	1690	2218	NR	60	108 AS		1963	Drilled to CI	
Madison	Lot 7, 1Q	1080	Waverly	Giffen	1	780 GL	1956	1610	2110	2563		199 N		1963		
Madison	Lot 7, 1Q	1459	Waverly	Giffen	2		1956	1595	2075	2554		1,350		1957		
Madison	Lot 7, 1Q	1577	Waverly	Giffen	3		1957	1615	2105	2575	248					
Madison	Lot 7, 1Q	1092	Willey	Holman	1		1954	1629	2130	2577	29, 5 BO					
Madison	Lot 8, 1Q	1597	Waverly	Cordray	5		1957	1615	2085	2597	1,000					
Madison	Lot 8, 1Q	1612	Waverly	Cordray	7		1958	1615	2075	2606	1,000					
Madison	Lot 8, 1Q	1587	Seibert	Wallace	1		1957	1616	2085	NR		300		1959	Deepened to CI	
Madison	2Q	676	Ohio Fuel	Holmes	2		904 GL	1941	1570	2119	2468		184 N			
Madison	Lot 5, 2Q	380	Bebout	Bourne	2		1940	1620	2187	NR		"gas"				
Madison	Lot 6, 2Q	288	Ohio Fuel	Jones	1	975 GL	1939	1605	2125	NR		262 N				
Madison	Lot 6, 2Q	318	Ohio Fuel	Jones	3	1099 GL	1939	1714	2299	NR		521 N				
Madison	Lot 6, 2Q	302	Ohio Fuel	Kidwell	1		1096 GL	1939	1710	2280	2602	116				
Madison	Lot 6, 2Q	283	Ohio Fuel	Steve	1		1036 GL	1939	1640	2180	NR		2,628			
Madison	Lot 7, 2Q	394	Ohio Fuel	Jones	2		1066 GL	1940	1707	2221	2622		1,030		1943	Deepened to CI
Madison	Lot 7, 2Q	1697	Ohio Fuel	Mossmen	1	967 GL	1923	1600	2123	NR		800		1958		
Madison	Lot 8, 2Q		Rulse-Kuntz	Bell	1		1941	1712	2249	NR		100				
Madison	Lot 8, 2Q	411	Ohio Fuel	Oatman	1	1027 GL	1940	1687	2204	NR		"gas"				

## DATA TABLES

11

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of "Big Lime"	"Top of "Newburg"	"Packer Shell" "Top of "Packer Shell"		MCFG	BO		
Licking (continued)	Madison	Lot 8, 2Q	505	Settles	Wickham	3	900 GL	1939	1618	2115	2620	300	786		1965	"Went to water" Deepened to CI TD 2150'
		Lot 11, 2Q		Reliance	David	1		1941	1556	2060	2448			"oil"		TD 2150'
		3Q		Wehrle	Miller	105		1924	1640	2110	2490			"oil"		Brine well
		Lot 16, 3Q		Penick	Sears	48		1920	1604	2048	NR			"oil"		Brine well
		Lot 16, 3Q		Penick	Boylan	2		1982	1555	2048	NR				1961	Brine well
		Lot 16, 3Q		Penick	Boylan	1-A		1958	1495	1988	NR			2		Brine well
		Lot 16, 3Q		Penick	Miller	1-A		1958	1609	2109	NR			3 AS		Brine well
		Lot 16, 3Q		Penick	Miller	1		1961	1629	2129	NR			"oil"		Brine well
		Lot 3, 4Q		Pennoco	Leslie	3		906 GL	1755	2275	NR		42		1963	
		Lot 3, 4Q		Pennoco	Leslie	6		887 GL	1668	2188	2602	200				
		Lot 3, 4Q		Pennoco	Leslie	8		925 GL	1730	2220	2607	45 BO				"Went to water"
		Lot 5, 4Q		Hill & Son	Leslie	1		1954	1628	2148	NR		10		1956	
		Lot 6, 4Q		Ohio Fuel	Hickey	2		1956	1637	2099	2593		1,980 N			Deepened to CI
		Lot 6, 4Q		B. M. C.	Neighbarger	2		1954	1649	2119	2583		1,690		1958	Deepened to CI
		Lot 6, 4Q		Hill	Neighbarger	4		1955	1618	2098	2561					Deepened to CI
		Lot 6, 4Q		B. M. C.	Neighbarger	5		1955	1725	2180	2665		483 SI		1957	Deepened to CI
		Lot 6, 4Q		Jebb	U. S. A.	1		1956	1600	2095	2548	297				
		Lot 6, 4Q		Jebb	U. S. A.	2		1956	1594	2104	2536	133				
		Lot 6, 4Q		Johnson & Butler	U. S. A.	1		1956	1630	2086	2571	150			1958	Deepened to CI
		Lot 7, 4Q		Waverly	Kreager	2		840 GL	1653	2120	2633		1,103 N			
		Lot 7, 4Q		Waverly	Kreager	3		1959	1650	2116	2628	1,000				"Went to water"
		Lot 7, 4Q		Ohio Fuel	Hickey	3		1957	1600	2085	2557		1,240 N		1957	Deepened to CI
		Lot 7, 4Q		Ohio Fuel	Hickey	4		1959	1630	2086	2593		1,080 N		1959	Deepened to CI
		Lot 7, 4Q		Ohio Fuel	Diocese of Columbus	1		1954	1624	2086	2571		1,750 N		1959	Deepened to CI
		Lot 16, 4Q		Waverly	Hickey	1		1955	1710	2160	2673		901		1958	Deepened to CI
		Lot 22, 1Q		Star	Ralston	2		1944 GL	1845	2376	2800		188 AA		1969	Deepened to CI
		Sec 5		Hoover	Stewart	2		1948	1630	2210	NR			"oil"	1952	
		Sec 16		Davis	Lothes	2		1940	1675	2220	NR		3,000 AS			
		Sec 16		Willey	Van Wey	4		1940	1600	2132	NR		786		1956	
		Sec 16		Ohio Fuel	Wilkins	2		964 GL	1590	2138	NR		790			
		Sec 25		Davidson	Mathews	1		1939	1635	2230	NR		350			Deepened to CI
		Sec 25		Willey	Van Wey	1		1939	1625	2179	2542	500				
		Sec 25		Willey	Wince	2		1939	1630							
		1Q		Bebout	Haughn	1		1939	1638	2170	NR					PB to Nbg?
		1Q		Davis & Hazlett	Leering	1		1939	1615	2195	NR		1,225 N			
		3Q		Clinton	Jack	1		1923	1620	2123	NR		2,900		1958	
		Lot 14, 4Q		Preston	Glecker	1		1954	1658	2170	NR		26 AS		1928	
		Lot 18, 4Q		National	Reddick	3		1941	1550	2053	NR		36 AS			
		4Q		Wehrle	Baker	72		1922	1715	2221	NR		250		10	
		4Q		Wehrle	Baker	96		1923	1620		NR				"oil"	TD 2147
		4Q		Wehrle	Ingram	58		1921	1625		NR				"oil"	TD 2143
		4Q		Wehrle	Wehrle	93		1923	1730		NR		200 N			TD 2230
		4Q		Wehrle	Ingram	107		1924	1720		NR				"oil"	TD 2240
		4Q		Clinton	Myers	1-A		1950	1653	2152	NR		120 N			Brine well
		4Q		Clinton	Myers	2-A		1951	1714	2183	NR		18			Brine well
		4Q		Penick	Myers	3-A		1956	1732	2226	NR					Brine well
		4Q		Penick	Myers	4-A		1957	1700	2180	NR				"gas and oil"	TD 2150
		4Q		Wehrle	Reddick	94		1923	1616		NR		150 N		"oil"	

## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Licking (continued)	Newark	4Q		Wehrle	Reddick	102		1923	1644		NR		1,000	"oil"	TD 2160	
	Newark	4Q	378	Wehrle	Wheeler	81		1923	1632		NR		789 AS	8	TD 2162	
	Newark	Lot 8, 4Q		Ohio Fuel	Van Wrey	12	985 GL	1940	1598	2147	NR				1953	
	Newton	Lot 18, 1Q		Logan	Hampshire	1		1914	1700	2315	NR		668 N		1920	
	Newton	Lot 18, 1Q		Ohio Fuel	Wolfe	1		1914	1605	2135	NR		300 N		1920	
	Newton	Lot 19, 1Q		Ohio Fuel	Weaver	2		1913	1580	2059	NR		2,250 N		1922	
	Newton	Lot 20, 1Q		Ohio Fuel	Weaver	1		1912	1500	1985	NR		942 N		1927	
	Newton	Lot 21, 1Q		Ohio Fuel	Evans	1		1913	1525	2008	2440		1,750 N		1923	Deepened to CI
	Newton	Lot 21, 1Q		Ohio Fuel	Coffman	1		1912	1502	2008	NR		1,300 N		1924	
	Newton	Lot 22, 1Q		Ohio Fuel	Weiss	1		1918	1636	2159	NR		"gas"		1922	
	Newton	Lot 24, 1Q		Ohio Fuel	Horton	1		1914	1774		NR		150 N		1926	TD 2280'
	Newton	Lot 25, 1Q		Ohio Fuel	Van Fleet	2		1919	1680	2151	NR		340 N		1926	
	Newton	Lot 28, 1Q		Ohio Fuel	Nethers	1		1913	1495	2038	NR		280 N		1934	
Lorain	Newton	Lot 16, 4Q	607	Penick	Lynn	2		1941	1620	2191	NR		188 N			
	Newton	Lot 16, 4Q	622	Penick	Lynn	5		1941	1655	2217	NR					
	Newton	Lot 17, 4Q	456	Willey	Pound	1		1940	1630		NR		500 N			
	Newton	Lot 17, 4Q	457	Willey	Pound	3		1941	1652		NR		325 N			
	Newton	Lot 18, 4Q	588	Penick	Eshelman	3		1940	1587	2157	NR					
	Newton	Lot 18, 4Q	362	Ohio Fuel	Hansberger	11	1014 GL	1940	1618	2196	2521		3,490 N		1960	
	Perry	Sec 16	2483	Eaststates	Nichols	1-A	985 GL	1967	1839	2348	NR		462 AA		1972	
	Washington	Lot 23		Ohio Fuel	McClelland	1		1921	1610	2130	NR		330		1928	
	Avon	Sec 14	90	Dempsey & Cushing	Baldauf	1		1936	1010	2100	NR		550 N			PB to Nbg?
	Avon	Sec 14	35	Cushing	Baers	1	690 GL	1935	985	2083	2328		319		1935	
Medina	Columbia	Lot 26	115	Ohio Fuel	Boone	1	854 GL	1928	1337	2502	NR	200	1,270 N			Deepened to CI
	Grafton	Lot 45	102	Ohio Fuel	Baker	1	872 GL	1936	1246	2300	2510					
	Grafton	Lot 55		Ohio Fuel	Schaefer	1		1936	1246	2300	2510					
	Henrietta	Lot 24	897	Birmingham-Henrietta	Bachman	1	820 T	1949	655	1635	NR	18		7 AS		PB from Cambrian?
	Henrietta	Lot 24		Kennedy	Boy Scouts	1	832 DF	1967	645	1653	1807	308				
	Chatham	Lot 17, tr 3	737	Huey	Fleming	1	1080 T	1950	1665	2640	NR		590 AS			
	Chatham	Lot 3, tr 9	550	Ohio Fuel	Shaw	1	924 GL	1945	1390	2364	NR		580			
	Granger	Lot 20		Bennett	McIlvried	1		1944	3206	3450	NR	265				PB from CI
	Gulford	Sec 4	1458	Obermiller	Belle	1	1	1964	2122	3361	3427		285			PB to Nbg
	Harrisville	Lot 8	775	Murdick	Delong	1		1951	1690	2659	2903		312 N			
	Harrisville	Lot 14		Ohio Fuel	Snyder	1	903 GL		1460	2487	NR	94	770 AS			PB to Nbg
	Harrisville	Lot 85	744	Huey	Ambeiser	2		1950	1490	2460	NR		300 N		1958	
	Harrisville	Lot 94	774	Huey	Ambeiser	3		1951	1495	2458	NR	65				
	Harrisville	Lot 110		Ohio Fuel	Jamison	1		1922	1600	2796	NR	320				
	Harrisville	Lot 112		Logan	Alberts	1	983 GL	1910	1595	2576			2,000 AS?			Produced from Nbg and CI?
	Harrisville	Lot 158		Logan	Frery	1		1917	1635	2650	2794		770 AS?		1928	Produced from Nbg and CI?
	Hinckley	Lot 2	1077	W. Dempsey	Wilkinson	1	981 T	1945	1645	2833	3113	100				
	Hinckley	Lot 5	1049	Ohio Fuel	Green	1		1956	1528	2736	NR		438 AA		1964	
	Hinckley	Lot 6	1012	Ohio Fuel	Knietik	1		1955	1591	2800	NR		543 SI AS		1956	
	Hinckley	Lot 8		Ohio Fuel	Nicholson	1	1096 GL	1955	1715	2923	NR	325	803 AA		1965	
Hinckley	Hinckley	Lot 6	971	Ohio Fuel	Sofas	1	998 GL	1954	1603	2883	NR		592 AA			PB to Nbg
	Hinckley	Lot 7	535	H. Dempsey	Botzaw	1		1944	1833	3050	NR	315	270 AA	20	1961	
	Hinckley	Lot 7	657	Ohio Fuel	Gantose	1	1228 GL	1947	1855	3022	NR		192 N		1968	
	Hinckley	Lot 33	456	Ohio Fuel	Bozett	1	1202 GL	1943	1870	3120	3381	188				Produced from Nbg and Packer Shell?
	Hinckley	Lot 53	363	Dempsey	Frank	1	1169 GL	1941	1891	3137	3367	213				



County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			BO where indicated	Initial production		Abandoned or drilled deeper	Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
									"Big Lime"	"Newburg"	"Top of Packer Shell"		MCFG	BO																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Medina (continued)	Hinckley	Lot 54		East Ohio Gas	Cleveland Trust Co.	1		1942	1642	2910	3113	200				Produced from Nbg and CI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Hinckley	Lot 68	413	Miller	Cleveland Met. Park	3	1024 GL	1942	1725	2967	3218	265		1,300 AS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Hinckley	Lot 69	382	Ohio Fuel	Smith	3	1117 GL	1942	1825	3032	3261	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Hinckley	Lot 71	331	Ohio Fuel	Wilson	1	1270 GL	1941	1985	3215	3448	436		213 AS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Homer	Sec 17		Ditch	Renke	2		1948	1522	2470	NR	1,000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Meigs	Homer	Sec 17?	717	Ditch & Gerig	Renke	3		1949	1523	2469	2663					PB from CI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Lafayette	Merrick tr		Ohio Fuel	Puchas	3	1044 T	1927	1830	2818	3067						"Blew down and went to water"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Lafayette	Lot 3, tr 1	589	Ohio Fuel	Cletzer	1	1127 GL	1945	1750	2757	2954	679																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Medina	Lot 2	1296	Ohio Fuel	Delas	1	1103 GL	1961	1868	2964	3257	145																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Medina	Lot 32	101	Ohio Fuel	Stoddard	1	987 GL	1935	1715	2857	3063	492																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Meigs		Sharon	Lot 69	1014	Belden & Blake	Shanafelt	1		1955	2130	3332	3597	200				PB to Nbg																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Spencer	Sec 10	249	Ohio Fuel	Wood	1	849 GL	1940	1250	2210	2401	142					1974																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Lebanon	Undiv lands	1478	Proffitt	Harris	1	576 DF	1970	4218	4999	NR		SSG	1,000 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Lebanon	Lot 170	1424	Blue Creek	Hoback	1	640 GL	1969	4085	4865	5536		530 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 176S	1423	Hunting	Cleek	1-A	605 KB	1969	4219	4994	NR		5,660 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Meigs	Lebanon	Lot 176N	1429	Hunting	Fleming	1-A	732 DF	1969	4246	5012	NR					PB to Oriskany																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Lebanon	Lot 177	1430	Murphy	Sayre	1	595 KB	1969	4201	4972	NR						1974																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Lebanon	Lot 178	1422	Hunting	Ferrell	1-A	628 KB	1969	4136	4904	NR		4,500 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 179	1427	Hunting	Fleming	1-A	760 GL	1969	4325	5095	NR		1,500 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 181	1463	Proffitt	Boso	1	583 GL	1969	4130	4909	NR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Meigs		Lebanon	Lot 181	1446	Proffitt	J. & H. Proffitt	1	610 GL	1969	4131	4891	NR		12,890 N			PB to Oriskany																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Lebanon	Lot 183	1454	Proffitt	J. Proffitt	1	640 T	1969	4159	4910	NR						1971																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Lebanon	Lot 185	1431	Proffitt	Price	1		1969	4065	4946	NR		11,500 N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 185	1465	Proffitt	Sayre	1	591 KB	1970	4108	4895	NR		500 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 187	1458	Proffitt	Miller	1	1970	1970	4166	4914	NR		1,000 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	Meigs	Lebanon	Lot 191N	1455	Murphy	Sellers-Becker	1	835 DF	1969	4274	5038	NR	12,000				PB to Ohio Shale																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Lebanon	Lot 196	1483	Proffitt	Thelss	3	757 DF	1970	4253	5013	NR		15,000 AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Lebanon	Lot 200	1469	Quaker State	Sellers	1	830 GL	1969	4239	5003	NR		1,000 AF				1969																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Lebanon	Lot 202	1493	Proffitt	Croy	1-A	800 GL	1970	4085	4835	NR							PB to Oriskany and Ohio Shale																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Lebanon	Lot 203	1501	Tri-State	Quillen	1	831 KB	1971	4255	4974	NR								1971																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Lebanon		Lot 206	1456	Proffitt	Thelss	1	571 GL	1969	4150	4909	NR		250 AA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Lebanon		Lot 1171	1461	Quaker State	Montana Realty	1	673 KB	1969	4103	4865	NR	10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks	
									"Top of Big Lime"	"Newburg"	"Top of Packer Shell"		MCFG	BO			
Morrow	Franklin	Sec 1	3148	Moore	Kagy Mast	1	1399 DF	1970	1150	1587	NR	200	2,000		1970	PB from Cambrian Discovery well	
	Franklin	Sec 6	3062	Piper	Ellis	1	1394 GL	1968	1040	1532	1981		1,860 AA				
	Franklin	Sec 6	3062	Moore	Ellis	1	1340 GL	1964	1140	1512	1981		1,700 AA				
	Franklin	Sec 6	2610	Moore	Hauseburg-Sprague Mast	1	1393 GL	1965	1149	1538	NR		3,700 AA				
	Franklin	Sec 6	3156	Moore	Moore	1	1400 DF	1970	1150	1542	NR		1,172 N				
	Harmony	Sec 1	3123	Moore	Ault	2	1187 DF	1969	878	1453	NR		789 AA		1970	PB from Cambrian Discovery well	
	Perry	Sec 7	691	Cameron	LeMons	3	1375 GL	1964	1100	1557	NR		2,800 N		1967		
	Perry	Sec 7	1488	Cameron	LeMons	3	1372 GL	1964	1125	1518	NR		3,110 N		1967		
	Perry	Sec 7	1588	Cameron	LeMons	4	1394 GL	1964	1130	1555	NR		2,100 N		1967		
	Perry	Sec 18	3004	Poston	Craven	1	1385 GL	1967	1153	1565	NR		200		1970		
Muskingum	Perry	Sec 18	2295	Production Service	Eash	1	1397 DF	1965	1135	1550	NR		1,603 AA		1970	PB from Precambrian	
	Troy	Sec 18	3161	Moore	Windbigler	1	1390 DF	1970	1050	1422	NR		1,572 N		1970		
	Troy	Sec 18	47	Poston	Windbigler	1	1398 KB	1962	1050	1465	1970		1,580		1970		
	Troy	Sec 31	2918	Poston	Cunningham	1	1255 DF	1968	1035	1490	NR		200 AA		1970		
	Troy	Sec 31	2919	Poston	Cunningham	2	1292 GL	1967	1073		NR						
	Union	Lot 6	2017	Cushing & Bradshaw	Brand	1	1060 T	1968	3310	4150	4617	220					
	Perry	Hopewell	Sec 18	1646	Oxford	Retrick	1	1953	1963	1860	2295	2778	1,900	1,420		1955	Deepened to CI
		Reading	Sec 15	923-A	Gas Producers	Flautt	2	1007 GL	1933	2080	2894	2955	165	1,800 N			
		Thorn	Sec 13	1667	National	Cooperrider	1	1954	1964	1840	2269	NR	180				
		Thorn	Sec 13	1614	National	Cooperrider	2	1952	1864	2674	2752	2729	1,800				
Thorn		Sec 13	1675	National	Cooperrider	3-B	1954	1833	2281								
Thorn		Sec 13	1683	National	Cooperrider	4-B	1954	1837	2269	2725		2,104					
Thorn		Sec 13	791	Okio Oil	Faucht-Long	1	1942	1895	2350	2691	185	740					
Thorn		Sec 14	793	Palm	Long	3	1942	1840	2385	2691	150						
Thorn		Sec 34	755	Ohio Fuel	Bashore	1	1045 GL	1941	1798	2200	NR	146	390				
Portage		Edinburg	Lot 18	128	Willis	McConnell	1	1077 GL	1962	2534	3904	NR	1,900 N		1964	Cumulative production: 60,000 MCF	
Richland	Franklin	Lot 62	33	Small	Bradley	1	1070 T	1952	2190	3482	3665	100					
	Randolph	Lot 88	242	Belden & Blake	Curry	1	1963	2510	3827	4310	680						
	Ravenna	Lot 7, NWQ	214	Klin-Ark	Thornion	1	1091 GL	1963	2314	3655	4124	129					
	Madison	Sec 19		Logan	Raughman	1	1289 GL	1913	1278	1794	NR		1,069 AS	1919			
	Madison	Sec 19		Logan	Crouch	1	1910	1290	1889	NR	NR		1,328 AS				
	Madison	Sec 19		Logan	Crum	2	1275 GL	1912	1260	1876	NR		770 AS				
	Madison	Sec 19		Logan	Druntheller	1	1352 GL	1913	1332	1840	NR		543 AS				
	Madison	Sec 19		Logan	Keith	1	1287 GL	1912		1865	NR		1,721 AS				
	Madison	Sec 19		Logan	Schansee	1	1299 GL	1910	1297	1870	NR		492 AS				
	Madison	Sec 19		Logan	Shortis	1	1299 GL	1912	1272	1874	NR		1,070 AS				
Plymouth	Madison	Sec 19		Logan	Trimble	2	1278 GL	1913	1280	1820	NR		942 AS				
	Madison	Sec 19		Logan	Trimble	2	1292 GL		1285	1786	NR		1,200 AS				
	Madison	Sec 30		Logan	Burnison	1	1315 GL	1906	1300	1910	NR		1,250 AS				
	Madison	Sec 30		Logan	Burnison	3	1386 GL	1907	1390	2020	NR		175 AS				
	Madison	Sec 30		Logan	Marlow	1	1288 GL	1909	1260	1823	NR		537 AS				
	Madison	Sec 30		Logan 658-L	Simpson	1	1311 GL	1909	1273	1793	NR		2,600 AS				
	Madison	Sec 30		Logan	Simpson	2	1909	1360	1969	NR	NR		3,350 AS				
	Madison	Sec 30		Logan 643-L	Simpson	1	1909	1309	1837	NR	NR		3,600 AS				
	Plymouth	Sec 24	491	Moore	Cooke	1	1088 GL	1971	759	1342	NR	4,000	9,330 AA			Discovery well SI	
	Plymouth	Sec 24	344	McClure	Miller	1	1089 GL	1965	761	1351	NR		4,300 AA				
Plymouth	Sec 24	433	McClure	Miller	2	1094 GL	1966	750		NR	38						

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of "Big Lame"	"Top of "Newburg"	"Top of "Packer Shell"		MCFG	BO		
Richland (continued)	Plymouth	Sec 25	395	McClure	Egner	1	1087 DF	1965	749	1241	NR	4,000	11,400 AA		SI	
	Plymouth	Sec 25	427	McClure	Egner	2	1077 KB	1966	740	NR	NR				SI	
	Plymouth	Sec 25	420	McClure	Strauch	1	1087 KB	1966	746	NR	NR	200			1971	"Went to water"
	Plymouth	Sec 35	498	McClure	Strauch	1	1078 T	1971	732	1303	NR				1967	Deepened to CI
	Washington	Sec 24	298	McManaway	Kovals	1	1257 GL	1964	1415	2042	2365		2,000			
	Washington	Sec 25	281	McManaway	Armentrout	1		1962	1650	2294	NR	145	744		1963	Abandoned
	Washington	Sec 25	208	McManaway	Armentrout	1	1430 T	1961	1636	2272	2558				1966	Deepened to Cambrian
	Washington	Sec 25	290	McManaway	Delp	2	1458 GL	1964	1640	2302	NR		200		1969	Discovery well
	Washington	Sec 25	203	McManaway	Donough	1	1485 T	1961	1658	2270	NR		2,000 N		1968	Abandoned
	Washington	Sec 25	226	McManaway	Souder	2	1295 GL	1961	1625	2270	NR	134	535 N			
Stark	Washington	Sec 8		Ohio Fuel	Roush	2		1929	1600	2218	2533					
	Canton	Sec 16	559	Belden	Worshlaky	1		1947	2808	4180	4439	100				
	Jackson	Sec 6	98-A	Ohio Fuel	Smoyer	1	1050 GL	1931	2470	3520	4019	684				
	Lawrence	Sec 3	50-A	Penn Ohio	Nichter	1	950 GL	1929	2270	3400	3752	600				
	Lawrence	Sec 23	989	East Ohio	Crowe	1	961 GL	1956	2384	3475	3887	820				
	Osnauburg	Sec 8	1165	Tri-State	Pustay	1	1132 GL	1967	3030	4854?	4774	200				
	Osnauburg	Sec 15	1235	Sandy Supply	Powell	1	1088 GL	1967	3131	4728?	4870	125				
	Pike	Sec 3	184	Dalton & Hanna	Fry	3		1941	2975	4190	4664	150				
	Bath	Lot 37	163	Wiser	Firestone	4		1945	1815	3065	NR		1,450		1950	
	Bath	Lot 37	178	Wiser	Hostetler	1		1946	1845	3088	3396		1,225		1957	Deepened to CI
Summit	Bath	Lot 39	350	Belden & Blake	Guten-Black	1		1958	1955	3190	3470	700				
	Bath	Lot 44	172	Wiser	Hostetler	9		1955	1799	3028	3288?	115				
	Bath	Lot 44	109	Wiser	Steiner	2		1945	1838	3065	NR	970				Nbg produced?
	Bath	Lot 81	413	Obermiller	Workman	1		1950	1725	3230	NR				1965	
	Boston	Lot 2	437 PP	Miller	Prusak	2		1942	1645	2895	NR		116 AS		1968	Initial production includes Oriskany production
	Boston	Lot 2, 2Q	121	Cassidy	Cassidy	1	905 GL	1940	1720	2988	NR	250				
	Boston	Lot 2, 2Q	120	Dempsey	Muller	1	898 GL	1940	1720	2950	NR		1,224			
	Boston	Lot 2, 2Q	134	Dempsey	Prusak	1		1942	1645	2875	NR		1,500			
	Boston	Lot 2, 2Q	124	Dempsey	Schumaker-Schnabel	1		1941	1700	2933	NR		1,050 N		1953	
	Boston	Lot 4, 2Q	141	Dempsey	Mance	1		1942	1750	2996	NR		823 N		1953	
	Copley	Lot 47		Bacon & White	Thornton	1	982 GL	1931	2011	3240	3556	400				
	Franklin	Sec 26		Wilcox & Kime	Wilcox	1	1095 GL	1931	2430	3579	NR		1,800			
	Franklin	Sec 36	10	East Ohio	Daily	1		1936	2415	3542	3933		3,000			
	Franklin	Sec 36		East Ohio	Mahle	1		1936	2310	3397	3815	476				"Went to water"
	Green	Sec 7	4	East Ohio	Castello	1	1019 GL	1931	2357	3512	3885	200				} These may be the same well
	Green	Sec 9		Stoltz	Houn	1		1931	2357	3512	3885	250				
	Green	Sec 17		East Ohio	Bettler	3		1933	2475	3578	4014	310				
	Green	Sec 17		East Ohio	Bettler	4		1934?	2445		4010	536				1937? Deepened to CI
	Green	Sec 17		East Ohio	Hausman	1		1931	2410	3554	3963	100				
	Green	Sec 18		East Ohio	Hughes	1	1096 GL	1929	2461	3597	4004	112				
	Green	Sec 18	425 PP	East Ohio	Neuhauser	1	1010 GL	1929	2380	3508	NR	350	1,000 AS			
	Green	Sec 18		East Ohio	Ritter	1		1935	2505	3596	NR		1,050 N			
	Green	Sec 18		East Ohio	Ritter	2		1935	2425	3493	NR	6,420	5,000 AS			
	Green	Sec 18		East Ohio	Ritter		1135 GL	1929	2505	3598	NR		1,700 N?			
	Green	Sec 18		East Ohio	Ritter	1	1080		2470	3580	NR	130	1,095 AS			"Went to water"
	Green	Sec 19	3	East Ohio	Swartz	1		1936	2345	3416	3800	368				"Went to water"
	Green	Sec 19		East Ohio	Krasinski	1	1013		2365	3476	3889	1,250				
	Green	Sec 19		East Ohio	McCue	1		1931								



## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Summit (Continued)	Green	Sec 19		East Ohio	Wise	1		1937	2385	3450	3945	1,000	550		1936	"Blew down" Deepened to CI
	Green	Sec 19		East Ohio	Wise	2		1935	2400	3499	3958	648				"Went to water"
	Green	Sec 20		East Ohio	Winehart	2	1060	1933	2425	3531	4016	400				"Went to water"
	Green	Sec 31	9	East Ohio	Daily	1		1936	2410	3513	3972	432				
	Green	Sec 31		East Ohio	Wartz	2		1936	2390	3456	3933	535				
	Norton	Lot 22	59	Steiner	Anderson	1	1150 T	1944	2240	3386	NR	260	590 AS			
	Norton	Lot 32	62	Steiner	Miller	1		1945	2210	3362	3646	115	590 AS			
	Richfield	Lot 15, tr 1	150	Dempsey	Porter	1		1943	1935	3228	NR	200				
	Richfield	Lot 7, tr 2		East Ohio	Woodruff	1	1094	1927	1886	3125	3398	115				
	Richfield	Lot 8, tr 5	170	Bishop	Dick	1	1165 T	1944	1980	3245	3566	125				
Tuscarawas	Talmadge	Lot 2, tr 2	72	Pawnee	Smith-Guise	1	1120 T	1946	2100?	3460	3853					
	Jefferson	Lot 30, 1Q	419	Stone Creek	Stone Creek	1		1952	2960	4035	4434	150, 14 BO				
	Warren	Sec 32	875	Atlas	Edwards	1	1113 GL	1962	3534	4729	5197	7 BO				
	Canaan	Sec 3	333	Curtis	Haas	1		1952	1725	2710	2958		419 AS		1952	Deepened to CI
	Canaan	Sec 3	1291	King	Smith	4		1962	1740	2700	2950	213	64 AA	10		Deepened to CI
	Canaan	Sec 4	355	Wise	Smith	1		1963	1720	2700	NR		1,000		1956	Deepened to CI
	Canaan	Sec 4	503	Huntzman	Smith	2				2730	2950		771		1966	PB to Nbg (1921)
	Canaan	Sec 5	1498 PP	Ohio Fuel	Cockrell	1	1032 GL	1921	1750	2720	2954				1955	
	Canaan	Sec 5	444	Logan	Robison	1		1918	1695	2698	2909	500				
	Canaan	Sec 5		Ohio Fuel	Smith	1		1918	1682	2884	2959	213	138 AS			Produced from Nbg and CI?
Wayne	Canaan	Sec 6		Ohio Fuel	Bowman	3	988 GL	1918	1740	2735	2939	500				Produced from Nbg and CI?
	Canaan	Sec 6	170	Ohio Fuel	Gearhart	1	1046 GL	1915	1780	2730	2928	260				Produced from Nbg and CI?
	Canaan	Sec 6		Ohio Fuel	Gearhart	5		1917	1741	2730	2929					
	Canaan	Sec 6		Medina	Homer	1	936 GL	1916	1605	2610	2762	700				Produced from Nbg and CI?
	Canaan	Sec 8		Ohio Fuel	Holman	2	1061 GL	1918	1800	2790	2985	170				Produced from Nbg and CI?
	Canaan	Sec 10		Ohio Fuel	Weimar	1		1918	1840	2915	3050	368				PB to Nbg
	Canaan	Sec 13		Logan	Moine	1		1935	1885	2915	3134	199	400 N, 120 AS		1963	"Went to water"
	Canaan	Sec 17	1171	Emch	Badger	1	1095 T	1961	1871	2810	NR					Deepened in Nbg
	Canaan	Sec 17		Logan	Badger	2	1155	1923	1900	2893	NR		20	10		
	Canaan	Sec 17	1215	Johnson	Moore	1		1961	1890	2825	NR		"gas and oil"		1921	
Produced from very base of "Big Lime" below the drillers' "Newburg"	Canaan	Sec 17		Preston	Muir	1	1105	1918	1870	3008	NR?		599	300		Produced from Nbg and CI
	Canaan	Sec 17		Logan	Parmenter	2		1961	1860	3008	3076					
	Canaan	Sec 17	1090	Dalton & Hanna	Parmenter	1	1125 T	1961	1898	3008	NR				1967	
	Canaan	Sec 17		Johnson	Parmenter	2		1961	1885	3010	NR		200	40		1967
	Canaan	Sec 17	1255	Johnson	Parmenter	3		1961	1862	2985	NR		50	50		1967
	Canaan	Sec 17	1280	Johnson	Parmenter	4		1962	1875	3002	NR		94	20		1967
	Canaan	Sec 17		Preston	Sell	1		1920	1865	3029	NR		25	25		
	Canaan	Sec 17	1183	Johnson	Thompson	1	1160 T	1961	1885	3017	NR			20 AF		1964
	Canaan	Sec 17	1056	Buckeye Supply	Wolgamott	1		1960	1880	2785	NR	250	310 AF		1969	
	Canaan	Sec 17	1272	Dalton & Hanna	Wolgamott	1-B		1961	1885	3008	NR		59 AF	50		
Produced from very base of "Big Lime" below the drillers' "Newburg"	Canaan	Sec 17	1254	Dalton & Hanna	Wolgamott	2		1961	1878	NR	NR		40 AF	30		
	Canaan	Sec 17	1292	Dalton & Hanna	Wolgamott	4-A		1962	1895	3035	NR		145 AF	40		
	Canaan	Sec 18	1182	Johnson	Burbank	1	1165 T	1961	1930	3040	NR		206 AF	20		1964
	Canaan	Sec 18		Johnson	Burbank	2		1961	1935	NR	NR		30 AF	15		
	Canaan	Sec 18	1262	Dalton & Hanna	Moore	1		1961	1896	NR	NR		50 AF		1969	
	Canaan	Sec 18	145	Dalton & Hanna	Parmenter	1		1951	1945	2875?	NR		"gas"		1966	RO in 1959
	Canaan	Sec 18	1172	Johnson	Parmenter	1-A	1120 T	1961	1910	3023	NR		30	15 N		
	Canaan	Sec 18	1216	Johnson	Parmenter	2-B		1961	1937	3040	NR		30 AF	15		1964

# DATA TABLES

17

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of "Big Lime"	"Top of "Newburg"	"Top of "Packer Shell"		MCFG	BO		
Wayne (continued)	Canaan	Sec 18	1372	Dalton & Hanna	Parmenter	3		1983	1905	3043	NR		200 AF	40		
	Canaan	Sec 18	1293	Dalton & Hanna	Parmenter	4-B		1982	1900	3033	NR	1.5 BO	20 AA	10	1968	
	Canaan	Sec 18	1234	Miller	Shilling	1	1191 GL	1981	1962	3066	NR		252 AF	100	1970	Produced from Nbg and CI
	Canaan	Sec 18		Logan	Shilling	3		1918	1920	3108			544			
	Canaan	Sec 18		Logan	Shilling	4		1919	1950	2840	3143	100			1927	
	Canaan	Sec 18	1243	Miller	Shrimplin	1		1981	1905	2910	NR		400 AF	60	1970	
	Canaan	Sec 19	1236	Arjo	Irwin	2		1981	1929	3089	NR		40 AF	30	1984	
	Canaan	Sec 19	1240	Emch	Kane	1		1981	1945	3053	NR		103 AF	30	1983	
	Canaan	Sec 19	1228	Emch	Polm	1		1981	1940	3051	NR		80 AF	50	1983	
	Canaan	Sec 19	1203	Emch	Yost	1	1170 T	1981	1948	3051	NR		20 AF	10	1984	
	Canaan	Sec 20		Ohio Fuel	Notestine	3		1931	1905	2900	3115		588			Produced from Nbg and CI
	Canaan	Sec 24	1186	Ohio Fuel	Wilson	1	1042 GL	1981	1985	2998	3182	100				
	Chester	Sec 19		Ohio Fuel	McCaulin	1		1930	1912	2876	3016	121				
	Chester	Sec 20	153	Harmon	Steltzer	2		1951	1977	2936	NR		680 AS		1959	Deepened to CI
	Chippewa	Sec 34	560	East Ohio	Dawson	1	1019 GL	1957	2200	3321	3643	600	295 AA			
	Clinton	Sec 2	65	Ohio Fuel	Cliffe	1	994 GL	1947	1900	2684	3058 ?		620 N		1958	Deepened to CI
	Clinton	Sec 2	191	Ohio Fuel	Johnson	1	1053 GL	1936	1988	2753			1, 010 AA			PB to CI
	Clinton	Sec 4	1610	Ohio Fuel	Leckrone	2	958 GL	1971	1813	2638	NR					
	Clinton	Sec 9	1609	Ohio Fuel	Aylesworth	5	1034 GL	1970	1888	2640	NR	162				
	Clinton	Sec 24	286	Ohio Fuel	Metcalf	2	1120 GL	1943	1910	2689	3008					
	Congress	Sec 1E		Ohio Fuel	Dodd	1		1917	1595	2560	2763	771	111			PB to Nbg in 1928
	Congress	Sec 1E	43	Logan	Snyder	2	1038	1917	1725	2750	2880					PB to Nbg in 1946
	Congress	Sec 1E	90	Ohio Fuel	Snyder	3	1046 GL	1948	1760	2667	NR	59	110 AA			
	Congress	Sec 1E	134	Ohio Fuel	Snyder	4	1059 GL	1950	1760	2686	NR	84	103 AA			
	Congress	Sec 1E	97	Ohio Fuel	Swartz	4	1020 GL	1948	1730	2666	2888		42 N		1969	PB to Nbg in 1948
	Congress	Sec 2		Medina	Tiomirovich	3		1917	1766		2911	610				PB to Nbg in 1917
	Congress	Sec 4	70	Ohio Fuel	Maurer	1	986 GL	1947	1650	2566	NR		325 N			
	Congress	Sec 7		Ohio Fuel	Carn	1	1082 GL	1928	1757	2864	2905	200				Produced from Nbg and CI
	Congress	Sec 8	1365	Ohio Fuel	Ruse	1	1093 GL	1928	1735	2701	NR		475 N		1983	
	Congress	Sec 11	1184	Miller	Cleveland Trust	1	960 T	1961	1674	2750	NR		20 N	30	1971	
	Congress	Sec 11	1207	Porter	Cleveland Trust	2	1015 T	1961	1738	2839	NR	60				
	Congress	Sec 11	1218	Dalton & Hanna	Helman	1		1961	1700	2790	NR		943 AF	80 AF		
	Congress	Sec 11	1239	Dalton & Hanna	Helman	2		1961	1723	2806	NR		750 AF	25	1973	
	Congress	Sec 11	1214	Miller	Richard	1		1961	1608		NR		188 AS	25	1971	
	Congress	Sec 11	1222	Miller	Uhler	2		1961	1775	2848	NR		20	20	1970	
	Congress	Sec 12E	347	Harmon	Boss	5		1948	1860	2814	NR				1952	Deepened to CI
	Congress	Sec 12E	102	Ohio Fuel	Zimmerman	1	1073 GL	1949	1790	2799	NR	59			1966	Deepened to CI
	Congress	Sec 13E	1370	Harmon	Aukerman	1		1938	1870	2800	3038		320 N		1963	Deepened to CI
	Congress	Sec 13E	1502	Harmon	Clinker	1		1917	1962	3041	NR	500			"oil"	Produced from Nbg and CI?
	Congress	Sec 13E	211	Ohio Fuel	Clinker	2		1919	1946		3125					
	Congress	Sec 13E	150	Ditch & Gerig	Garver	1		1951	1935	2945	3098		"gas"		1961	PB to Nbg in 1951
	Congress	Sec 13E	1278	Johnson	Garver	2		1962	1920	3023	NR		94 AF	10		
	Congress	Sec 13E	1288	Wells	Shepherd	1		1961	1892	2980	NR		500 AA	30	1973	
	Congress	Sec 13E	1189	Dalton & Hanna	Shepherd	1	1205 T	1961	1973	3073	NR				20 AF	1966
	Congress	Sec 13E	1164	Dee Ka Pipe	White	1	1160 T	1961	1935	2883	NR		800 N			
	Congress	Sec 13E		Clay	Wohlgamuth	1	1140 T	1960	1892	2840	NR		500 N		1964	
	Congress	Sec 13E	1152	Smith	Wohlgamuth	B-2		1961	1882	2846	NR		1, 196 N		1968	
	Congress	Sec 13E	1190	Dalton & Hanna	Yost	2	1095 T	1961	1918	3010	NR		20 AF	10	1965	

Produced from base  
of "Big Lime"

## "NEWBURG" OIL AND GAS WELLS

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Wayne (continued)	Congress	Sec 14	807	Dalton & Hanna	Good	2		1959	1790	2734	NR		600 AF		1965	
	Congress	Sec 14	1270	Heck	D. & E. Hodgdon	1		1962	2460	2698?	2897		188 AF	40	1967	PB to Nbg in 1962
	Congress	Sec 14	1304	Heck	L. & G. Hodgdon	1		1962	1716	2780	NR		200 AF	50	1967	
	Congress	Sec 14	1146	Porter	Yost	1	1070 T	1960	1825	NR	NR		181 AF	30	1964	
	Congress	Sec 14	1159	Porter	Yost	2	1065 T	1961	1815	2893	NR		200 AF	40		
	Congress	Sec 14	1380 PP	Harmon & Shafer	Yost	3			1815	2815	NR	20	"gas and oil"		1964	
	Congress	Sec 17	100	Ohio Fuel	Dreibelbis	1	1156	1928	1824	2790	2966		173 N		1969	Produced from Nbg and CI
	Congress	Sec 17		Ohio Fuel	Dreibelbis	2	1134 GL	1948	1810	2698	NR		417 N			
	Congress	Sec 17	92	Ohio Fuel	Kline	1		1948	1800	2689	NR		325 N			
	Congress	Sec 17		Ohio Fuel	Stanley	1	1129 GL	1928	1800	2753	NR		700 N			
	Congress	Sec 17	89	Ohio Fuel	Stanley	2		1948	1805	2692	NR	252	304 AA			
	Congress	Sec 18	48	Fierbaugh	Maasie	1	1134 GL	1948	1738	2668	NR					
	Congress	Sec 18	463	Blood	Maasie	2		1950?	1732	2640	NR					
	Congress	Sec 18	109	Ditch & Gerig	Ramsier	2		1949	1765	2670	2699		759		1955	
	Congress	Sec 19	329	Ohio Fuel	Holland	1	1132 GL	1947			NR				1952	PB to Nbg in 1949
	Congress	Sec 19	54	Ohio Fuel	Maasie	1	1093 GL	1946	1770	2638		188	644 AA		1957	Deepened in Nbg in 1952
	Congress	Sec 19	547	Ohio Fuel	Skrine	1	1129 GL	1947	1788	2663	2912		206 N		1958	Deepened to CI
	Congress	Sec 20	1117 PP	Ohio Fuel	J. C. Kline	1		1927	1825	2810	2970		543 N		1960	PB to Nbg in 1927
	Congress	Sec 20	107 PP	Ohio Fuel	J. B. Kline	1	1153 GL	1949	1800	2715	NR	145	206 N		1966	
	Congress	Sec 20	94	Ohio Fuel	Saratoin	1	1158 GL	1948	1800	2719	2956		428 AA		1962	PB to Nbg in 1950
	Congress	Sec 24E	128	Ditch & Gerig	Brandt	1		1950	1965	2808	NR		"gas"		1958	
	Congress	Sec 24E	811	Yenne & Smith	Brandt	1		1958	1971	2849			94 AA	5	1961	PB to Nbg
	Congress	Sec 24E	1224	Yenne	Brandt	2		1961	1962	2893	3068		250 AF	20	1956	PB to Nbg in 1949?
	Congress	Sec 24E	108	Central Oil Field	Brinkerhoff	1		1949	1940	2941	3120		213 N?			
	Congress	Sec 24E	130	Ditch & Gerig	Peacock	1		1950	1934	2870	NR		"gas"			
	Congress	Sec 24E	1257	Johnson	Schulz	1		1961	1815		NR		30 AF	15		
	Congress	Sec 24E	129	Ohio Fuel	Smith	1	1100 GL	1950	1880	2845	NR	330	188 AA			
	Congress	Sec 24E	132	Ohio Fuel	Smith	2	1094 GL	1950	1860	2804	NR		265 N		1967	
	Congress	Sec 24E	1003	Dalton & Hanna	Tegmiller	2		1959	1805	2820	NR	30			1960	
	Congress	Sec 24E	162	Dalton & Hanna	Woods	2		1951	1945	2947	NR		393 N		1967	
	Congress	Sec 36E	1031	Schultz	Ewing	4	1095 GL	1960	1836	2782	2979	198	126 AF	40 AF		
	Congress	Sec 36E	1106	Dalton & Hanna	Stair	1	1030 T	1961	1840	2810	NR		500 N		1968	
	Congress	Sec 36W	143	Harmon	Swanson	1		1950	1722	2646	NR		633 N			
	Franklin	Sec 1	689	Bebout-Smith	Berry	1		1958	2350	3100	NR		105 AA	23	1959	"Went to water"
	Franklin	Sec 1	736	Blood	Fowler	1		1958	2365	3131	NR	100, 30 BO				
	Franklin	Sec 2	747	Ohio Fuel	Dunham	1	1146 GL	1958	2302	3050	NR	103	679 AA		1963	
	Franklin	Sec 2	622	Miller	Figley	1	1140 T	1957	2290	3013	NR		560 N		1971	
	Franklin	Sec 2	695	Franklin	Franks	1		1958	2270	3035	NR	150	8,750 AS		1962	
	Franklin	Sec 2	963	Franklin	Hoffman	1		1959	2295	3045	NR		1,500 AS		1961	
	Franklin	Sec 2	782	Shafer	Leiner	1		1958	2320	3113	NR	330			1960	
	Franklin	Sec 2	688	Smith	Lucas	1		1958	2307	3062	NR	15	3,000 AA		1961	
	Franklin	Sec 2	689	Ohio Fuel	Newstetter	1	1132 GL	1958	2250	3028	NR		1,240 N		1963	
	Franklin	Sec 2	604	Ditch & Hanna	Seigel	1		1957	2335	3048	NR		1,848 N		1961	
	Franklin	Sec 2	707	Ditch & Hanna	Seigel	2		1958	2285	3030	NR	980	2,470 N			
	Franklin	Sec 2	810	Ohio Fuel	Wagner	1	1154 GL	1958	2306	3058	NR		4,160 AA		1963	
	Franklin	Sec 2	748	Ohio Fuel	Weaver	1	1146 GL	1958	2300	3037	NR		774 N		1965	
	Franklin	Sec 3	620	Franklin	Ackerman	1	1090 T	1957	2265	3010	NR		911 N		1963	
	Franklin	Sec 3	644	Franklin	Ackerman	3		1957	2300	3051	NR		975		1964	

# DATA TABLES

19

County	Township	Land subdivision	Permit number	Operator	Name	Well number	Elevation	Completion date	Depth (ft)			Show (MCFG; BO where indicated)	Initial production		Abandoned or drilled deeper	Remarks
									"Top of 'Big Lime'"	"Top of 'Newburg'"	"Top of 'Packer Shell'"		MCFG	BO		
Wayne (continued)	Franklin	Sec 3	684-3	Ohio Fuel	Baker	3	1140 GL	1958	2282	3020	NR		2,740 N		1965	
	Franklin	Sec 3	684-4	Ohio Fuel	Baker	4	1144 GL	1958	2290	3055	NR		576 AA		1961	
	Franklin	Sec 3	825	Ohio Fuel	Baker	7		1958	2275	3008	NR	980	2,960 AA		1961	
	Franklin	Sec 3	717	Ohio Fuel	Dial	1	1139 GL	1958	2280	3004	NR	20, 120	14, 888 AA?		1964	Deepened to CI
	Franklin	Sec 3	794	Ohio Fuel	Dial	4	1029 GL	1958	2170	2936	3329		1,740 AA		1960	
	Franklin	Sec 3	933	Ohio Fuel	Dial	7	1122 GL	1959	2283	2988	NR		8,750 AA?		1964	
	Franklin	Sec 3	671	Franklin	Rayle	1		1958	2258	3005	NR		2,320 N		1964	
	Franklin	Sec 3	636	Blood	Schmid	2		1957	2310	3065	NR		800 N		1961	
	Franklin	Sec 3	959	Franklin	H. Shure	1		1959	2265	3009	NR		633 N		1964	
	Franklin	Sec 3	738	Franklin	R. Shure	1		1958	2188	3009	NR		2,180 N		1964	
	Franklin	Sec 3	769	Franklin	R. Shure	2		1958	2278	3010	NR	84	1,230		1962	"Went to water"
	Franklin	Sec 13	750	Smith	Franks	1	1180 GL	1958	2332	3079	3587	140			1958	
	Franklin	Sec 13	820	Smith	Franks	1-A		1958	2330	3114	NR	298	6,172 AA	342	1958	
	Franklin	Sec 22	1539	Wenner	Rice	1	1065 DF	1968	2215	2987	NR					
	Franklin	Sec 22S	1544	Wenner	Rice	2	1082 DF	1968	2242	3027	NR					
	Franklin	Sec 34	851	Oxford	Alexander	5		1958	2195	2965	NR		700 N		1960	
	Franklin	Sec 34	785	Hedrick	Harrison	1		1958	2250?	2974	3420			30 AF	1959	Deepened to CI
	Franklin	Sec 35	841	Ohio Fuel	Merillat	1	1151 GL	1959	2300	3056	NR	353	636 AS		1962	
	Franklin	Sec 35	873	Ohio Fuel	Mumaw	1	1147 GL	1959	2295	3055	3545	916	696 AF		1961	Deepened to CI
	Franklin	Sec 35	904	Ohio Fuel	Wagner	2	1147 GL	1959	2297	3051	NR	98	2,380 AA		1965	
	Franklin	Sec 36	681	Smith	Hoy	1		1958	2350	3124	NR		635 AA			
	Green	Sec 18	1095	Ohio Fuel	Godwin	2	1094 GL	1980	2135	3001	3369	3,806				
	Milton	Sec 16	1119	Kernan	Seal	1	960 T	1960	1918	3100	3217	70	200 AA		1961	PB to Nbg in 1980
	Milton	Sec 21		East Ohio	Schar	1	983 T	1924	1965	3054	NR		350 AS			
	Plain	Sec 23	507	Ohio Fuel	McQuigg	1	1100 GL	1920	2015	2908	3147	712				Produced from Nbg and CI?
	Plain	Sec 29		East Ohio	Kean	1		1941	1750	2689	2878	94				PB to Nbg
	Plain	Sec 35		East Ohio	Yokum	2	966 GL	1926	1890	2722	3015	350	681 AS			PB to Nbg
	Wooster	Sec 21		Ohio Oil	Minglewood	4	845 GL	1928	1890	2785	3065		1,000			PB to Nbg



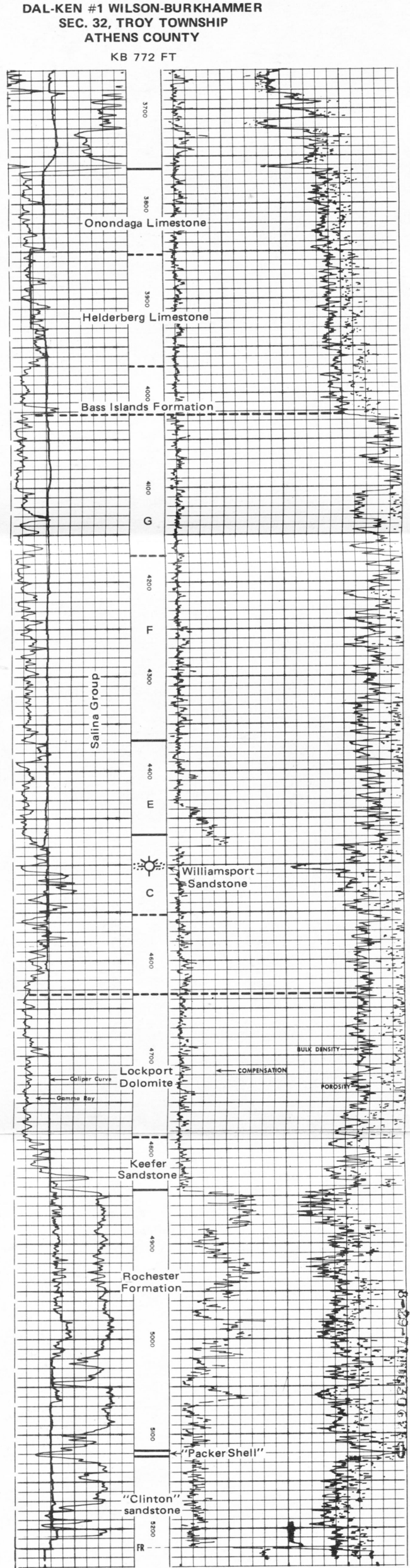
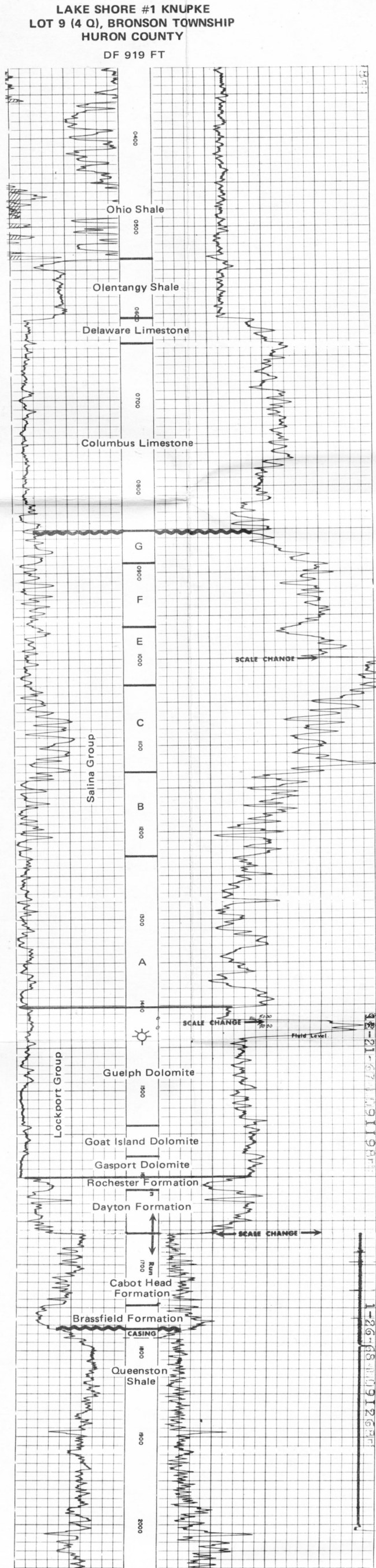
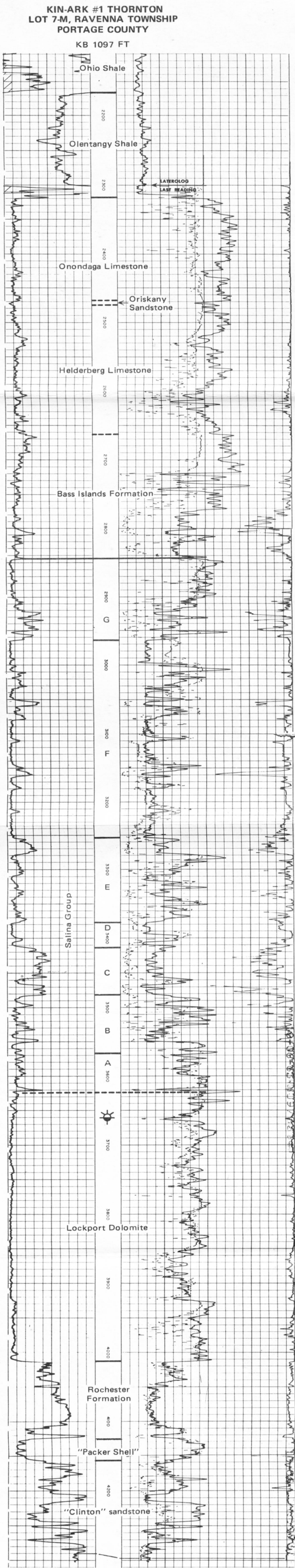


Figure 2.—Representative nuclear logs of "Newburg" tests: A, northeast Ohio, B, north-central Ohio, C, Athens County.